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HIGHER EDUCATION AND SERVICE TO OUR STATES

Proceedings of the 23rd Legislative Work Conference

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
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Foreword

It is commonplace to mark the transformation of higher education during the Fifties and Sixties in terms of an enormous numerical growth of students enrolling in college. Not so well understood or emphasized is the increasingly widening scope of the college and university role in responding to the expanding needs and concerns of the states and their people.

The current interdependency between the respective state higher educational systems and state governments illustrates well the theme of SREB's 23rd Legislative Work Conference (LWC). That interdependency was highlighted in a presentation by E. Walton Jones of the University of North Carolina, who provided a picture of how universities can better serve as a problem-solving backup force to state govermental agencies.

Historically, the Southern states have given high priority to universities functioning both as a source of manpower in critically needed professional areas and as a vehicle for opportunity for talented young people interested in those same professional fields. At the Lexington LWC, an entire morning was devoted to a panel presentation on needs of the states and ways of meeting them in three such areas—each in a field of health. Providing the overview were William E. Knisely of the University of Texas System, who discussed medicine; Henry B. Peters of the University of Alabama in Birmingham, who addressed himself to optometry; and W. S. Bailey of Auburn University, who dealt with veterinary medicine.

For over 20 years SREB has encouraged and assisted states in their efforts to plan and coordinate higher education, thereby avoiding wasteful duplication while assuring orderly growth of needed programs. Lyman A. Glenny of the University of California at Berkeley, a national authority on statewide coordination, here provides a hard, and sometimes harsh, assessment of progress in this direction.

In planning the Lexington conference, the Legislative Advisory Council asked that delegates be brought up-to-date on the latest trends in faculty collective bargaining—which Dennis Blumer of the University of Maryland has done in his succinct survey on currents in this field.

It is our hope that these essays will advance discussion and planning in these several areas and augment higher education's service to our states.

Winfred L. Godwin
President

Faculty Collective Bargaining in Higher Education

Dennis H. Blumer†

I have been serving over the past year as Director of the Academic Collective Bargaining Information Service. This is a service housed in Washington, D.C. It is funded by the Carnegie Corporation. Its purpose is to gather information concerning collective bargaining in higher education, and disseminate that information to administrators and other interested persons. The area is a new one, of course. Ten years ago no institutions were unionized. Even five years ago, no more than a handful of institutions were unionized. So we have attempted to keep interested persons posted on the fast-breaking developments in this field.

I was on leave over the past year while I served on this project. I am now back at my original position at the University of Maryland, where I serve as an administrator. However, the service is still in business, and its new director is the former president of a campus of the State University of New York.

Finally, let me say before I get into the topic itself that the opinions I express here today are my own.

Introduction

We are all aware of a new phenomenon in the public sector: that is collective bargaining. Many national unions are finding that their fastest growth is occurring in their public sector components.

This trend toward unionization has not escaped education. In the decade of the 1960's, over two-thirds of all school teachers in the United States unionized. It was perhaps inevitable that this trend would ultimately reach higher education as well.

The trend in higher education began in the community colleges. It still is strongest there. Seventy percent of the higher educational institutions which are unionized are community colleges. This seems logical for several reasons. First, community colleges are often tied closely to local school districts. They may be financed in part by local school boards. Their faculty may be former teachers who are used to and interested in unionization.

But lately some of the major colleges and universities in the country have begun to experience unionization campaigns. These include such institutions as Pennsylvania State University, the University of Pittsburgh, the University of Oregon, the University of Minnesota, the University of Colorado, the State University System of Florida, Michigan State University, and New York University, among others. Indeed, several major institutions have already unionized. These include the University of Hawaii, and Rutgers—The State University, located in New Jersey.

The institutions I just named are almost all members of the prestigious Association of American Universities. This Association has 46 members, and includes many or most of the large research-oriented universities in the country. I mention this because in many ways this group of institutions has been a leader in American higher education. What happens now in these institutions often occurs in later years in others.

But I am getting ahead of myself. Let us first define some terms.

Definitions

Most of us have a general idea of what we mean when we talk about collective bargaining. While theoretically it can mean simply two people who represent two different groups sitting down to resolve differences, it usually means a formal system of negotiation between an employer and a recognized employee group, called a union. This is the sense in which I will be using it today.

The topic that I address today is a relatively narrow one. First, we are talking only about unionization in higher education. Second, we are talking only about the unionization of **faculty** in higher education. For reasons which I will touch upon, unionization in this group may have special problems which I do not necessarily see for the unionization of, say, a secretary or a janitor in a college or university. Finally, I would like to limit my discussion here today to public institutions. Private institutions are largely covered by the National Labor Relations Act, which is of course a federal law. Public institutions are covered, if at all, by state law. The federal law is important in that it often provides a model for state legislation. But beyond that, I do not believe it would be of much interest to this audience today.

Attorneys general in most states have maintained that, in the absence of enabling legislation, public

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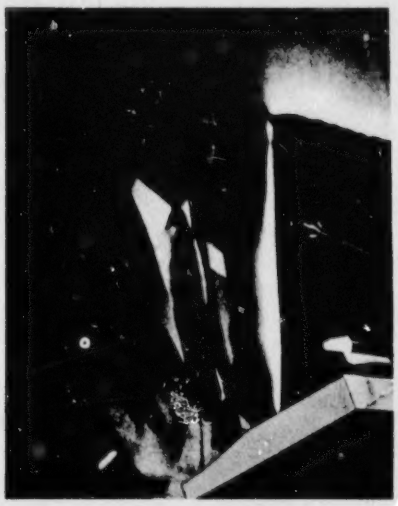
employees do not have the right to bargain collectively. If there is not a law on the book, it is illegal to bargain collectively. It is, of course, not illegal to join a union. That is a constitutional right. However, most states have maintained that a law is necessary for formal collective bargaining.

There are, of course, some exceptions. Ohio has allowed its universities to bargain collectively without a state law. Some Illinois public employees may bargain on the basis of an executive order of the Governor.

Present Status

Approximately 15 percent of the nation's faculty in higher education are now unionized. Over 230 institutions are now formally unionized. Eighty-five



Dennis Blumer reviews trends in collective bargaining for faculty in higher education.

percent of these are public institutions. In part, this is a reflection of the fact that most community colleges are public institutions, for 70 of that 85 percent are community colleges.

Relatively few "big name" institutions have unionized as yet. In fact, there are relatively few four-year institutions which are unionized. Yet the trend indicates that this may be changing. I mentioned previously the names of several major institutions which are having or have had unionization campaigns. In many ways, such institutions have been leaders in higher education. Therefore the importance of unionization campaigns on these campuses should not be underestimated.

The Future

Anyone who dares to predict the future in a volatile area like labor relations is on shaky ground. Nevertheless, if you will remember that these predictions, like predictions about almost anything are not worth a great deal, I will plunge ahead.

I would make two points. First, I would make what I call a common sense point. The figures indicate that once a campus unionizes, it stays unionized. As I stated before, there are over 230 institutions that are unionized. However, I know of no single successful deunionization. Almost all laws provide a mechanism for deunionization. But it has not been used—except occasionally to replace one union with another union. I will not attempt to explain the reason for this dearth of deunionizations. I would simply point out the impact that it has upon the growth trend. Every campus will experience some years when discontent is high. There may be a lack of money. There may be some hot tenure cases on campus. There may be leveling or falling student enrollment. There may be some local political issues. At any rate, these periods of discontent do occur on every campus. And it is in those periods when unionization is more likely. So if there are times when almost every campus is ripe for a unionization attempt, and if deunionizations are few and far between, the growth trend for collective bargaining in higher education must, for the long-term, be up.

My second point has to do with enabling legislation. This is no great revelation, and many others have cited it before. The point is simply that the growth trend of collective bargaining follows the course of passage of enabling legislation. Let me explain.

The figures indicate that, right now, eight states account for two-thirds of the collective bargaining contracts in higher education now in force. It is interesting to note that most of these states are also among the states which were earliest to pass collective bargaining legislation of a comprehensive kind. Many or most of the institutions in those states are now unionized: 87 percent in New Jersey; 91 percent in New York; 90 percent in Michigan; 57 percent in Pennsylvania. Thus, there is not much more room for further unionization in those states. The progress of collective bargaining must await the passage of further legislation in other states.

This legislation, I believe, is inevitable for most states.

Legislation in the States

Twenty-four states have passed some sort of legislation granting collective bargaining rights to employees of state colleges and universities. Seventeen of those laws cover faculty in some way. Of those 17, perhaps half have sweeping legislation granting full bargaining powers to faculty.

The trend is definitely toward wider rights in more states. In 1974, three new states have granted collective bargaining rights to faculty members: Iowa, Florida and Montana. Observers in several other states expect high activity in their next legislative session. These include the states of California, Wisconsin, Colorado, among others. Just the passage

of legislation is Wisconsin and California could greatly affect the growth curve of collective bargaining, since three of the five largest state university systems in the country are in those two states.

I have available for you this morning a detailed breakdown on legislation by state. Let me touch upon the highlights of that paper.

Activity in this area began in the states with strong labor votes, such as Massachusetts and Michigan. But it has spread to other states such as Alaska, Hawaii, Minnesota and Oregon. Only three states have had no legislative activity in this area at all during the period 1970 to 1973. These states are Louisiana, Mississippi and South Carolina. South Carolina did pass a grievance procedure act in 1971.

I would agree with the conclusions of the author of this piece to the effect that we should be aware that the unionization of postsecondary teaching personnel is but a very small part of the total picture. As Dr. Thomas Emmett says: "Their coverage or noncoverage is only a small side show in a much larger picture of policemen, firemen, clerical workers and so on." In those states that have collective bargaining rights for employees other that college faculty, pressure will be great for equal powers.

It appears also that pressure in a particular state becomes greater for passage of such legislation if similar legislation exists in neighboring states. I was recently talking to regents, administrators and state legislators in Wisconsin. It was pointed out that all of the states surrounding Wisconsin—Michigan, Illinois, Iowa and Minnesota—have some form of collective bargaining legislation for public employees. It was further pointed out that all of those states except Illinois have collective bargaining powers for college faculty written into their laws. It was felt that the pressure is great for such legislation in Wisconsin.

Federal Legislation

One other factor should be closely watched. Federal legislation has been introduced which would grant collective bargaining rights to the employees of public institutions. In those states which do not now have legislation, at least one federal bill, if passed, would grant such rights. Indeed, in some states which now have legislation, this bill would apply, if the existing state legislation is not substantially similar.

Of the several bills which have been introduced in Congress, two have gone through hearings. One, designed by and endorsed strongly by the National Education Association and the American Federation of State, County and Municipal Employees, is a very broad bill. It would create a separate national public employment relations commission, with powers broader than those which have been granted to the National Labor Relations Board. The bill number is House Bill No. 8677.

The other bill that got through hearings this session is House Bill No. 9730. This would simply extend the National Labor Relations Act to public colleges and universities.

Observers do not feel that either of these bills will pass in the near future. However, they have come up for several sessions, and each time they seem to get a bit further.

One of the strong arguments that proponents of the bills use is that many of the states have not acted to give public employees bargaining rights, and it is therefore up to the federal government to step in. Some opponents have been arguing that such a national bill would create a gigantic bureaucracy and would eliminate the possibility of the several states building their own collective bargaining structure, which is suited to the needs of each particular state. This diversity which state legislation allows has been called a "laboratory for experimentation."

With 24 different laws, one gets a variety of approaches to the problem. It does seem clear from the fact that many of these bills have been amended since their original passage, that states have learned from their own experiences and from the experiences of other states. In this way, it does seem that states have used these laws in an attempt to find the most workable solution for their own particular state.

Advantages and Disadvantages of Faculty Collective Bargaining

On the basis of my talks with officials in many states, it is my belief that the question concerning faculty collective bargaining legislation in most states is not whether to have legislation, but rather, what kind to have. And I believe it is important to be very careful.

One of the central issues is whether or not there should be a separate law for higher education. I believe there should be, but in arguing that point, it is necessary to give you the flavor of the complexity of the issues which lead me to that conclusion. Let me just mention several areas which constitute unique problems for colleges and universities in collective bargaining.

1. **Rewarding Merit.** State university professors are often exempted from the Civil Service system. The goal is to reward merit by promotion and by pay increase. By merit, I mean merit based upon judgment of one's peers—that is, other experts in the field—concerning the quality of one's work. The pursuit of excellence requires these incentives. The society absolutely requires the best possible doctors for our health, the best lawyers to guard our laws, the best architects to build our buildings, the best artists and musicians to advance our culture. All this requires the best possible teachers.

The essence of a union is to provide the greatest good for the greatest number. This is occasionally at odds with merit systems. Automatic across-the-board increases are usual both in the civil service, and in

union contracts. I believe across-the-board increases to be at odds with the university concept of merit. Any law must protect the university's merit system.

2. **Adversary Relationships.** One of the unique characteristics of college and universities and indeed of any organization whose primary product is knowledge, is that supervisors are rarely, if ever, completely qualified to judge the work of the people under their supervision. The dean of a college of arts and sciences must pass upon the work, and therefore, the promotion of professors of nuclear physics, of fine arts, of history, of chemistry, and so on. I making those judgments, he must rely heavily upon the judgment of the candidate's colleagues in his department, especially the judgment of the senior professors in that department. And in areas other than promotions, administrators of institutions of higher education must also lean heavily upon faculty. Such areas include curriculum content, admissions standards, degree requirements. The real experts in these areas are the faculty.

Thus, in universities there is no clear distinction between employees and employers. Many management decisions are made in the first instance by employees, since they are the knowledge experts. Any law should reflect this fact, and keep curriculum, admissions standards, class size, and the like, outside the realm of collective bargaining. Although these issues do touch upon the economic well-being of faculty members, as well as their job satisfaction, faculty members must deal with these issues not as "employees" bargaining with employers, but as experts in the field. Decisions in these areas should not be left to negotiations at the bargaining table, but to the traditional methods such as faculty senates, which universities have evolved over the centuries.

3. **Diversity of Opinion.** An educated man is one who can think for himself. He may be dead wrong, but his opinion is his own, reached by the hard road of independent and conscientious thinking.

This quality is, of course, also an inseparable part of any faculty at a quality institution. Faculty members think for themselves. And indeed, this is part of why we hire them, part of why we grant them tenure. We protect their right to independent thinking so that they can aid us in the advancement of the frontiers of knowledge.

It is important that collective bargaining not impinge upon this ancient principle of academic freedom. Let me give just two examples. Unions operate by majority rule. Will a particular professor who does not think with the majority feel undue influence to go along with the union demand which he believes is detrimental to the academic enterprise? Second, what happens in the case of agency shop? As you know, agency shop is a term which means that every employee of a unionized organization must pay the equivalent of union dues. Do we fire a tenure professor because he refuses to pay union dues?

Any law must, I believe, address these kinds of special problems. This calls for a separate law.

Conclusion

You will note that I have not spoken today of the pros and cons of collective bargaining. Quite frankly, on the basis of my observation, I believe that the political forces at work in many states will dictate that laws be passed. So for them the question has gone beyond whether such a law is desirable. The question has become, "what kind of law is best for our state?"

I have attempted to give a flavor of a very few of the issues that must be addressed, including my conviction that higher education needs a separate law. I will say quite frankly that I believe no state has yet passed a law which addresses those issues. The State of Wisconsin has formed a committee to look into those issues. It includes the chairman of the State Legislature Education Committees and Labor Committees, several regents of the State university system, several university administrators, faculty members, students and citizens. This task force has a full-time staff, and I believe that they will come up with some answers to the questions which I have posed.

I have worked for state universities in several states. I have come to firmly believe that the excellence of our society depends in great part upon the excellence of our universities, especially our public universities, which train by far the greatest number of our citizens. While I can see the advantage of collective bargaining in several respects, I think that we must take special care in applying it to universities. Let's not copy the collective bargaining model that we have built over the past 30 years for steel factories, if that model doesn't fit. Let's take a little time and devise a proper model.

The University in Service to State Government

E. Walton Jones†

I suspect I was chosen to speak on this topic for two reasons: (1) because of my having served on the Advisory Committee for a study that has just been completed by SREB entitled, **The Academic Community: A Backup Force for State Government**, and (2) because of my involvement in programs that attempt to interface the university and state government for many years. I am, and have been for a long time, in the gap that exists between the university and government.

The study by SREB involved several persons from the University of Georgia. Dr. Gene Bramlett, Assistant Vice President for Public Services of the University of Georgia, was the principal investigator and, as is usually the case, did an excellent job. Gene has a tremendous capacity for organizing and managing this type of study which involves many interested parties. The study was supported by the National Science Foundation.

The basic methodology that was used in conducting the study involved the design and implementation of two very lengthy questionnaires. One of these questionnaires was aimed at the university community with special emphasis on the top echelons of administration. The other questionnaire was administered to state agencies and/or to those units of state government which were considered to be the potentially prime users of university services. These two instruments involved not only mailed questionnaires but personal interviews.

Let me review with you the definition of public service as it was used in this study. "It refers to applied research conducted for or at the request of state government; consultation of either a formal or an informal nature; the provision of educational programs conducted expressly for state government, e.g. conferences, institutional workshops, short courses or other non-degree oriented training programs for state government; or any other activity or physical facility provided by a university or college to an operating unit of state government."

A summary of the obstacles that were found to prohibit close working relationships between the university and state government is as follows:

1. **Organizational and/or operational** characteristics of programs. This obstacle refers to the fact that both state government agencies and the university have organizational structures and operational policies that may stand in the way of effective relationships. For example, the universities are structured into departments by academic discipline which may present difficulties when working with state government on problems of a multidisciplinary nature. It was suggested that state agencies often operate at a harried pace without sufficient time to sharply delineate specific problems on which universities and colleges might provide useful assistance. The agencies simply do not have the time or will not take the time to work with university faculties which generally move at a more deliberate pace.

2. **Poor communication** between state agencies and the academic community was considered a major obstacle. This lack of communication referred to the very different environments in which state agency personnel and university personnel find themselves from day to day. There is a tendency for university people or the academic types to isolate themselves into communities of interest with very little interchange with agency personnel or persons associated with the day to day operation of state government. State employees in turn do not often find the weird, longhairs from the university desirable companions either professionally or non-professionally.

3. **Inadequate funding** was identified as a major barrier to close working relationships. Universities are normally funded for teaching and academic research and not for services to state government except for special purposes. State agencies, on the other hand, may be "locked in" on current budget cycles with little means of supporting work that might be provided by outside groups.

4. **Lack of university commitment.** This obstacle refers to the fact that many universities do not conceive of public service as a major mission of the institution. Both their inherent interest and the object of their funds relate directly to teaching and the pursuit of scholarly activities. Some faculty members consider public service as a lower order

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activity not warranted in view of the training attained or the traditional mission of the university. State agencies sometimes complain that university faculty are "ivory towered" or impractical. Their approach to problems of the type facing state government often yields little benefit to state government.

There were many more minor obstacles cited by persons interviewed. These included red tape involved in contractual arrangements, apparent lack of demand for assistance, lack of interest, and problems of timing. Faculty and agency attitudes often hamper the development of effective working relationships. The costs of services are high and there is resentment of overhead charges. The university rewards system was frequently cited as discouraging public service activities.

No "Best Solutions"

The study indicated that although the obstacles appear overwhelming, they have been conquered in certain states and between certain universities and state governments. An overall conclusion of the study was that there are probably no "best solutions" to achieving effective relationships between state government and the academic community. Appropriateness of the particular solution depends upon many factors: The type of institution, the size and range of competency present at particular institutions, the degree of need for outside assistance by particular types of state agencies, the historical patterns of relationships that have developed among institutions of higher education and the mechanisms that have been employed to facilitate working relationships. That approach which works well in one state may not work in another and the approach that proves successful in developing productive relations between a given university or college may not work when applied to another university or another institution.

It was suggested that an implication could be drawn from the "no best solution" conclusion—that where there is commitment to improve relationships, ways can be found to overcome the obstacles. It was found that in several states of the region, as well as in many states outside the region, this was the case. The study indicates that many universities and colleges and many units of state government in the region perceive a need for closer working relationships and are searching for effective techniques.

University Should Take Initiative

A basic recommendation of the study is that:

The university take the initiative in establishing a more effective program of university-governmental relations. This was recommended because of the greater stability of the university and the fact that many of the high level decision makers in state government are there for a short period. Also, the complexity of the university is such that it is often difficult for persons outside the university to fully comprehend its internal relationships and organizational structures.

The study suggested that only a small number of institutions in each state should develop a hard thrust toward public service for state government. The larger institutions would have a better chance of success as opposed to the smaller ones.

Institutions that seriously want to provide more and better services to state government should consider or do the following things: 1) make a positive commitment to the concept, 2) appoint a person to be in overall charge of the institution's public service activities, 3) provide for adequate funding, 4) recognize that it takes considerable time to develop the institutional structures and organizational mechanism needed, 5) create effective administrative structures for handling multidisciplinary and interdisciplinary problems, 6) develop a program around the strengths of the institution, 7) make provisions for faculty promotions and awards, 8) cultivate a demand for services within organizations outside of the university through effective liaison activities.

A university that does these things will have laid the foundations for effective working relationships and for the launching of effective programs. It was recommended further that a university-state government council might be appointed for the purpose of coordination and continuous dialogue.

The study suggested there are also many things that can be done by state agencies to improve the situation. It was recommended that the governor's office, the state legislature and the major agencies need to consider very carefully how the various institutions can serve them. These institutions then must assist in creating effective funding mechanisms. It is especially important for these agencies to begin developing an internal environment conducive to utilizing university resources. This involves changing the image of the university professor from the "ivory tower" stereotype and the "long haired nuts." It also involves establishing guidelines and procedures for effectively utilizing university personnel. University faculty and students need experience and exposure to the operations of state government.

It appears to me that there should be general agreement regarding all of the suggestions and recommendations of the study. I cannot conceive of anyone disagreeing with the need for commitment, resources, improved communications and all the other things that were recommended. So what? How do we really move ahead to do what has to be done?

Effective Program in North Carolina

Let's look at some of the very simple but effective models for university-state government interaction that have been put together recently. I would suggest that one of the best is the Institute of Community and

Area Development at the University of Georgia. In my opinion, The University of North Carolina and the state of North Carolina have also made some good moves to make the university more effective in service to state government.

Let me outline some of the approaches that have been taken over the last few years in the State of North Carolina with the university taking the initiative as was suggested in Gene's study.

In 1967, Dr. Ed Bishop was appointed Vice President for Public Services of The Consolidated University of North Carolina. This appointment was made because President William Friday and the

E. Walton Jones speaks on university capabilities to help solve problems of state governments.

Board of Trustees felt the need for better interfacing of the university's resources and services with the needs of the state and nation.

Dr. Bishop delivered a speech in 1968 in which he suggested that one of the major problems of the university was one of access. He was not referring to access from the standpoint of minority students or others to the resident degree programs. He had in mind the typical person, agency or organization outside the university who had a great need for technical information or services that could not be delivered as effectively by any other social institution. The person or organization had no concept of how to get at this university resource and/or service.

A university by definition is supposed to be a community of scholars. Every individual within the university, in this context, is an institution within himself or herself. This, however, is an unworkable model in today's world from the standpoint of public service. We must figure out some way to aggregate these resources or put them together in such a way that there are doors or windows to this wonderworld of academia.

The basic technique for building bridges or providing access is the creation of centers or institutes. These centers or institutes not only serve as bridges to the outside but help establish internal linkages to overcome the obstacle relating the departmental or discipline-oriented organizations. They are generally interdepartmental, interschool, or in many instances, interinstitutional in terms of organizational scope. Many of you know the state of North Carolina has had a consolidated university for many years and recently has organized all of higher education into one system. The University of North Carolina now has 16 institutions, which include all the public senior higher education institutions within the state.

Institutes or centers with The University of North Carolina to a large extent are organized around one basic model. There is a policy board which actually manages or sets the policies within which the institute works. The institute or center usually has an executive director and a very small staff. A central function of these organizations is to serve as a source of information with respect to its particular thrust whether it be environmental affairs, urban studies or marine sciences. A technical committee comprised of the scholars from throughout the University is usually appointed to advise the staff with respect to program operations and to insure rigor and academic respectability.

Another organizational entity relating to institutes and centers that helps with the interfacing of state government and other outside agencies is the Public Advisory Committee. In almost every instance, an advisory committee comprised of user agencies and organizations outside of the university is appointed or requested to serve by the president of the university.

The typical operational procedures of these institutes require the director to maintain a continuing needs inventory with respect to research or public services in the area of concern, whether it be in water resources or in environmental affairs. This needs survey then is developed in cooperation with the outside advisory body. A continuous assessment of the resource base within the university and the ability to respond is another basic function. The objective is to identify gaps between needs and the on-going university programs and try to close them. A principal function of each institute is to maintain relations with user agencies and make sure that the information being generated is useful and that it is accessible to the organizations as needed.

A very vital part of the overall system in North Carolina is the central office in the General Administration of The University. This office is charged with maintaining liaison with all state agencies and all high officials within state government. The officer in charge serves as chairman of the policy boards of all public service institutes, centers and/or councils. By serving as chairman of these bodies and working with them, he, at least knows where to go to get

information in particular areas where there is special interest. It is amazing how much a person in this office can do if there is some type of organization relating to all major areas of concern to government. This is an objective of my office.

The University of North Carolina has, at the present time, 27 interinstitutional institutes or centers. Some are working better than others. In general, the director and staff determine how effective they are.

A very important entity within The University of North Carolina, which has been in existence much longer than the organizations I have been discussing, is the Institute of Government. I think this Institute is unique in its organizational structure and operations. It meets many of the objectives that Gene alluded to in his study. The Institute of Government has its own staff of specialists in various aspects of governmental operations. The reward system for Institute personnel is tailored to the functions of the Institute. Promotions and all rewards generally associated with a department with a discipline base is contained with the Institute itself.

I think it is extremely important that every state have an Institute of Government or an institute of this type that is not dependent upon the raw resources from the departments but can launch its own programs and have its own people in the field in continuous service the state government. This is a lead element that establishes and maintains rapport for the entire university with state government. It has been remarkably effective in combating the image problem.

In my opinion, The University of North Carolina is responding generally to overall research and educational needs of the state. We have the management capacity within The University to insure that we are allocating resources generally according to priority needs.

In addition to this generalized responsiveness of The University to outside needs, we have the capacity to launch major thrusts into special problem areas such as those of the environment and of the cities through our institutes and centers. In each of these institutes and centers, we have special funds that can be utilized to provide interested faculty with funds to get projects started that are identified as areas of need. These funds are administered by the councils that operate the centers and institutes and are related again to the needs inventory and to the resource bases that work in these particular areas.

In addition to this, we have the Institute of Government that works on a continuing basis with the legislature and high government officials on day to day issues of state government. This Institute provides training for officials of government, including the legislators and people actually affiliated closely with the governor's office. We have recently begun to design and establish an executive training program that would aim directly at the executives that operate and manage major program areas within state government. It is anticipated that this will parallel the executive management institute program for business and industry in the state.

One Additional Institute Needed

In my opinion, we need one additional institute type to provide full service. This might be called an institute for contemporary issues or institute for research in public affairs. This institute needs to focus on the major aggregative problems that we have that are not only multidisciplinary but are of such an order of magnitude that we need a specialty in the design of interdisciplinary research.

A few years ago, a proposal was prepared that would have provided for the creation of an institute of this type in North Carolina. This institute would, in effect, have an interdisciplinary team whose principle task would be to create the research designs to effectively analyze some of the major problem areas facing the state and union. This team would consist primarily of an economist, behavioral scientist, systems engineer and a statistician. The team of **senior** scientists would receive a problem challenge from either state government or others. They would closet themselves, lay out the various components of the problems and determine relevant disciplines and design a model for the conduct of the research. They would then have the resources to call in the various disciplines and scholars to engage in research exercises of sufficient scale to analyze all of the options. State government officials and others would be involved throughout the conduct of these studies.

This type of organization, I think, is absolutely essential if we are going to solve large scale problems such as coastal zone management, problems relating to rural development, the problems of our cities and many others. The nature of these problems is such that you can't attack just one piece of a problem because the second and third order effects may cancel out what you're doing in a dimensional context.

In summary and conclusion, I would suggest that the principal way to make the university a more viable backup force to state government is to do primarily what the study suggests. Where he does not now exist, one major officer within the university system needs to be assigned responsibility for interfacing the resources of the university with the problems of the outside community, with special emphasis on the problems of state government. This officer should begin to establish relationships, both within the university and outside, that would result in the tearing down of the obstacles and barriers that were identified in the study. The second thing would be to form some kind of advisory body comprised of individuals at high levels from all the institutions, including officials of state government, to work with the central office. This council or body would begin to determine where the university might

better serve the interests of the state, including decisions that have to be made by state government at the policy level. Part of the challenge of the body would be to determine the resources needed to carry out these responsibilities. An organization of this type already exists within North Carolina.

It would be the responsibility of the central office to begin to assess the barriers that have been identified to determine priorities in tearing them down and structuring bit by bit the organizations and institutions within the university and outside the university needed to make a major impact on the problems.

I think that this is about as far as any state should go in the initial stages. Follow-up action and the activities that would result in progress must come from the assessments made by this central office along with the council that is appointed to work with its head. It would be desirable to provide a small fund for this office to use in creating new institutions and getting them operational. This small fund would provide the incentives needed to get the job done quickly. These actions would vary in each state, depending upon the existing situation with respect to the organizations of higher education and the status of public service programs.

The New Environment for State Planning and Coordination of Higher Education

Lyman A. Glenny†

Planning and its coordination came late to higher education as it did to other social services in the United States. We had not been a nation of planners until World War II revealed its value and overcame the idea that planning was somehow an alien or socialistic venture. The context for establishing planning-coordinating agencies for higher education in the 1960s was one of almost unbridled expansion and optimism. Enrollments were doubling, state funds were plentiful, massive building programs were undertaken, and each institution new or old seemed to aspire to become a great graduate research institution.

The states responded to the growing complexity of expansion problems by creating a variety of coordinating and planning boards or councils. Some had only advisory powers, others much authority to implement plans and control higher institutions. These new agencies operated in a political context of relative simplicity. Most governors' offices had small staffs—political rather than professional—and rarely a specialist for higher education. In state legislatures a political appointee with an assistant might sometimes be found on the joint finance and budget committees, but professional staffs were virtually nonexistent. Under these conditions coordinating boards or councils entered a near vacuum with their fresh staffs of professionally trained specialists in planning, budgeting, and program development. These agencies were in an ideal position to create a favorable record of accomplishment and, as far as the two political branches were concerned, did so. By the late 1960s, most coordinating agencies and most statewide governing boards had completed one or more planning cycles. Geared to expansion, the plans—almost without exception—anticipated unending increases in the number of young people and in the proportion of high school graduates who would attend college. Both the governor and the legislature increasingly relied on coordinating boards for initiating policy for higher education.

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Different Environment Today

Today, the coordinating agencies and statewide governing boards find themselves in a very different political and operational environment than during the 1960s.[1] In the late '60s the staffs of many governors' budget offices were expanded to include professional specialists for higher education. These analysts, selected for their competence and experience, began to review the budget and programming work of both the institutions and the coordinating or statewide governing boards. Later, as funding constrictions and unexpected drops in enrollment occurred, coordinating staffs tended more than previously to move into the political sphere and control of the governor, and hence away from the legislature.

Also, by 1970 many legislatures actively began to combat the continuing accretion of gubernatorial power. They too hired professional staff members for research units and legislative councils and many provided staff for at least the appropriations and finance committees. In the past four years the growth of these legislative staffs has been the most distinguishing characteristic of state government. Specialized staffs equal to that of the governor are not uncommon, nor is the use of experts on higher educational matters. Economists, political scientists, accountants, and managers now aid legislators in dealing with the operating agencies of government. Moreover, many legislatures have either established new program review and audit agencies or added that function to an existing office performing fiscal audits. It is not uncommon for college and university budget requests to be reviewed seriatim by the state coordinating board, the executive budget staff, and from one to four different legislative committee staffs. Committee staffs may even be divided along partisan lines; thus further fragmenting the review process. Top administrators of colleges and universities increasingly exhaust their time and their planning and management resources in responding to the plethora of executive and legislative staff requests. They have little time left for educational and program planning and development which legislators and governors desperately want them to do, and—if their institutions are to survive in the next 20 years—they must do.

The political context is further complicated for coordinating boards because of the ineptness of the states in handling the federal programs for buildings,

continuing education, and instructional equipment. Rather than assigning program administration to the existing coordinating board or the statewide governing board, new agencies were often established. Hence while planning responsibilities generally lay with the coordinators, other agencies with functions having marked effects on the course of higher education could plan independently of the coordinating boards. Planning became much more difficult and coordination among the agencies unlikely even when mandated by the government.

"1202 Commissions" Created

Primarily because of this proliferation of state agencies dealing with higher education, by the Educational Amendements of 1972 the federal government sought to create in each state a single comprehensive planning agency. These so-called "1202 commissions" (identified by the number of the section in the law) were to involve all postsecondary education in planning and in commission membership. The federal statute also encouraged the consolidation of the facilities commissions and continuing education agencies into the new 1202 agency. (In early drafts of the bill this was a requirement.) A few states took advantage of this opportunity for greater unification in the new agency, while others awarded the 1202 functions to the existing coordinating and planning board. However, most states created still **another** new agency without changing, abolishing, or consolidating any of the existing ones for higher education. The unfortunate result of these developments is to increase the ambiguity of planning and operations for state government generally and for the state coordinating board particularly.

The federal government is not especially pleased with these confusing results of its attempt to achieve comprehensive planning. Not only are there more agencies for planning and operations for higher education, the 1202 commissions themselves seem to have been authorized only to obtain the meager federal funds available for planning. Few or no state dollars are committed and the composition of the agencies sometimes leaves doubt about their capability to perform planning for postsecondary education.

States, one may say, should be looking after their own interests and let the federal government worry about its own. Yet the problem is not so simple. The pattern of federal funding emerging in the past five years is one of awarding less and less money directly to institutions and more and more to supporting students through grant and work-study programs. Also, the federal administrative funds for the state facilities commissions have been drastically cut and are likely to be eliminated in the next two years. The federal policy of aiding students through the institution they attend has led the government into an extremely complicated set of administrative arrangements with the colleges and universities. As a result, it is unclear whether federal objectives are being achieved as against the more parochial ones of the institutions. Hence, at the moment congressional leaders and staffs seriously consider giving to the states the administration of all these aid programs. The 1202 commissions were initially authorized with possibilities of this kind in mind. Yet the continuation of fragmented responsibility in some states and its increase in others necessarily causes the federal people to be skeptical about delegating to the states these very important programs.

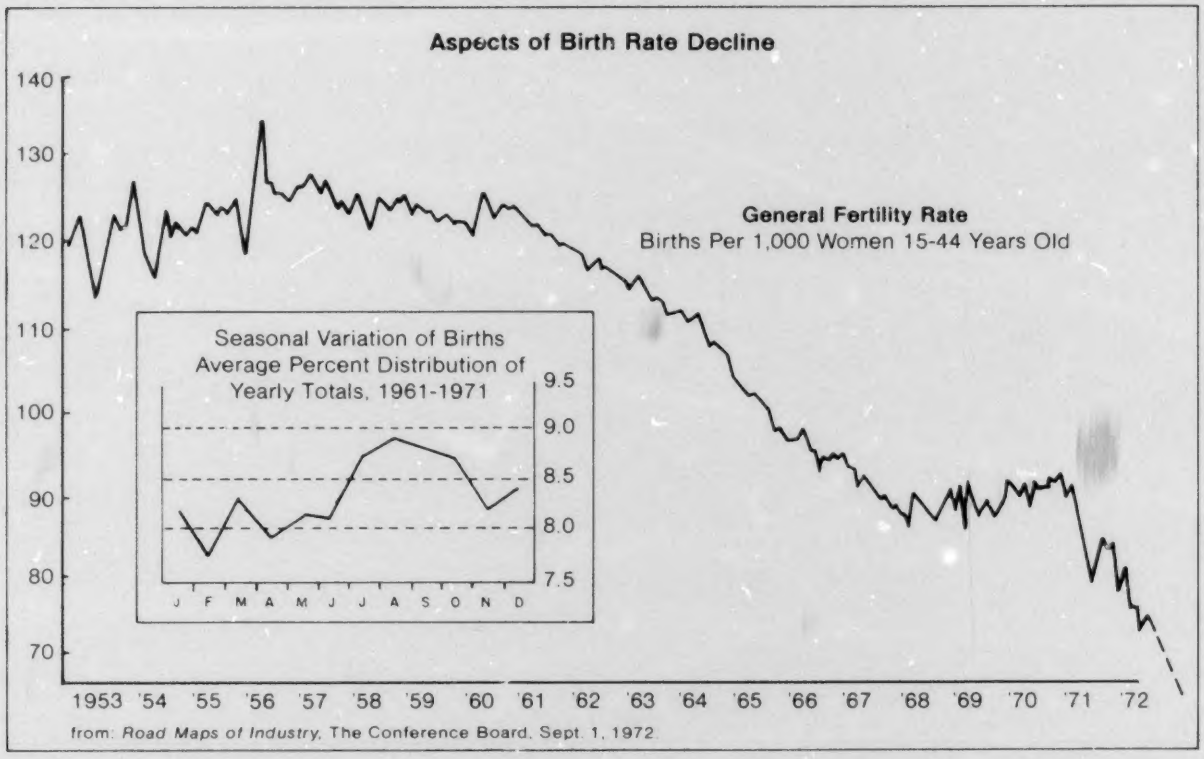
State planners have seldom considered the consequences of the federal student-aid programs, much less recognized them as integral to plans for the total financing of higher institutions. Moreover, the new 1202 commissions have usually been authorized by the state to plan and that is all. They are not to coordinate or administer. Yet if the thrust of federal funding is student aid, then those programs should be operationally integrated with comparable state-aid programs—as well as with comprehensive planning.

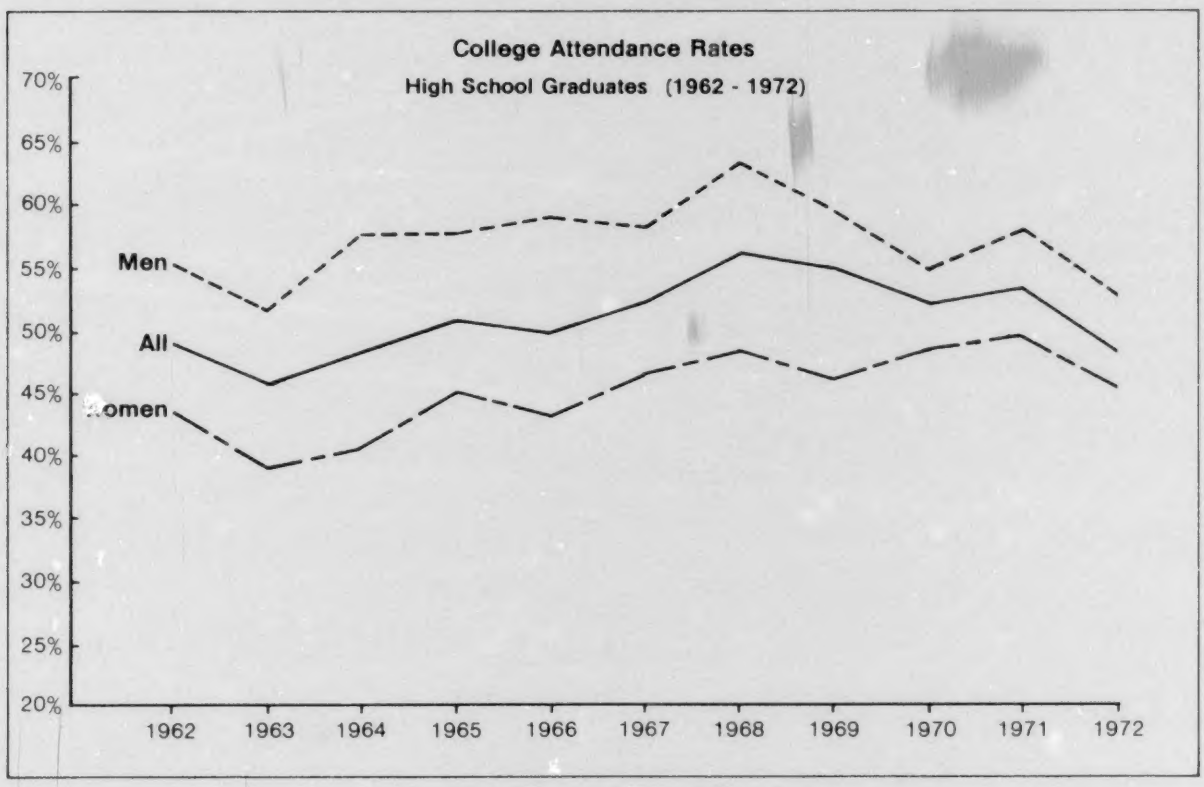
Policymakers Baffled

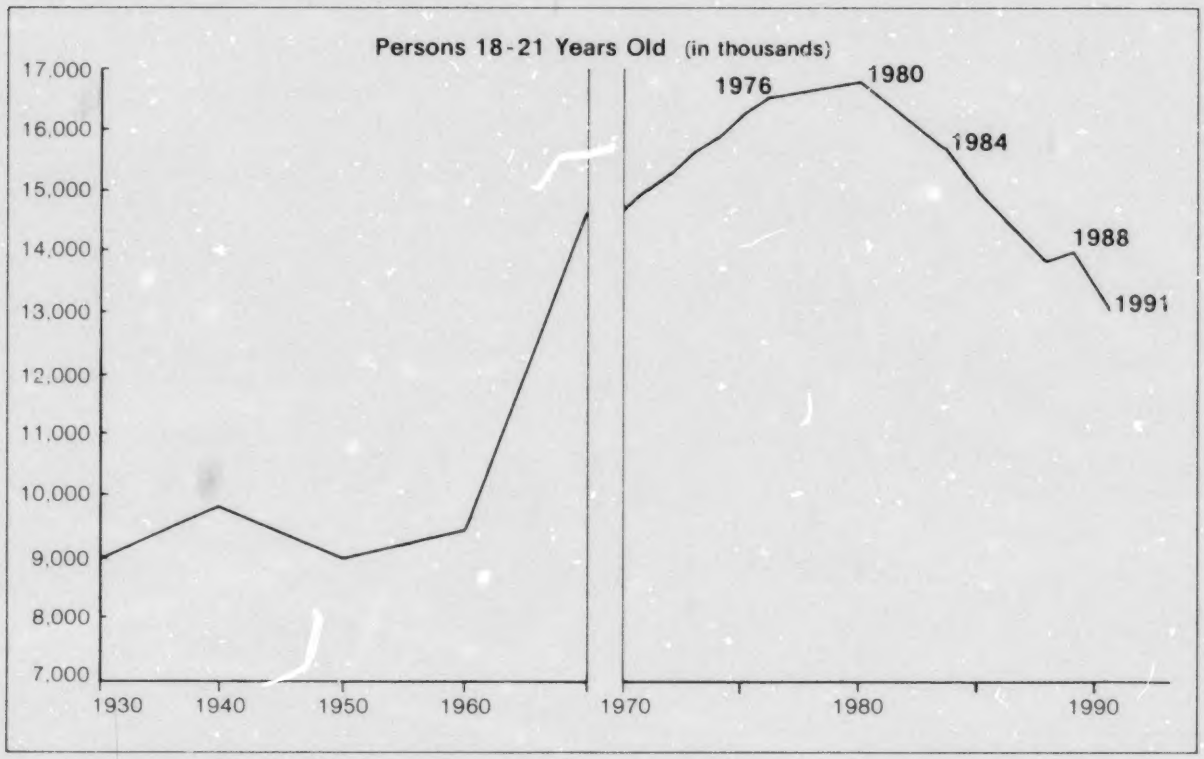
These new complexities of the political and organizational environment for state coordinating and planning agencies continue to baffle policymakers. But probably more important for societal welfare is the resolution of the confrontation between the new forms, modes and institutions for offering education on the one hand and the drastically changing enrollments among institutions both new and old on the other. The optimization of resources for higher education is already impaired by the lack of consensus on the long-range planning strategies.

Higher education has become a very important element for the state in improving the quality of life of its citizens and their economic welfare. That importance will increase rather than decrease in the future. However, what higher education offered in the past probably does not meet the needs of even a majority of the population today. The new emphasis on postsecondary education reflects this fact. Industrial and military training and educational agencies, proprietary institutions, and a host of churches, social organizations, and labor unions now extend opportunities which have been and continue to be highly underrated for their contributions to the citizenry. Samuel Gould reported for his Commission on Nontraditional Education[2] that over 32 million persons engage in such education, far more than the 8-1/2 million degree enrollments in colleges and universities.

The changing institutional patterns for offering training and education are paralleled by an equally broad array of new means for delivering it—such as audio and video tape cassettes, closed and open circuit TV, independent study, and team teaching.


Aspects of Birth Rate Decline
140
130
120
110
100
90
80
70
General Fertility Rate
Births Per 1,000 Women 15-44 Years Old
Seasonal Variation of Births
Average Percent Distribution of
Yearly Totals, 1961-1971
9.5
9.0
8.5
8.0
7.5
J F M A M J J A S O N D
1953 '54 '55 '56 '57 '58 '59 '60 '61 '62 '63 '64 '65 '66 '67 '68 '69 '70 '71 '72
from: Road Maps of Industry, The Conference Board, Sept. 1, 1972


College Attendance Rates
High School Graduates (1962 - 1972)
70%
65%
60%
55%
50%
45%
40%
35%
30%
25%
20%
Men
All
Women
1962 1963 1964 1965 1966 1967 1968 1969 1970 1971 1972



College credit is given for previous experience, for participation in social action, for a year abroad, and for other activities historically foreign to higher education.

Not only do new types of institutions offer education to students not traditionally in college, but so do the colleges and universities. As enrollments actually drop or level off, institutional staffs search for new constituencies to serve—in practice, the low-income students and adults from all walks of life. Private colleges make contracts with industries for adult education, and also engage in extension activities formerly the sole province of the large metropolitan private university. State colleges—the institutions most affected by the enrollment slippage—have offered little extension work in the past; now they do so through off-campus centers, late evening and weekend classes, and correspondence courses.

As adults are sought to make up for enrollment declines among the young people, the state faces an important policy issue. In the past, most direct costs of extension and off-campus work were paid by the student; now many state institutions not only give resident credit for such work but by doing so bring these enrollments within state-funding formulas for regular daytime students. Some states are directly facing this issue but others seem unaware of this turn of events which so fundamentally affects the population to be served through heavy state subsidies. Unquestionably, we as a nation are turning more and more toward being "a learned society," as some scholars have dubbed it. Most of us look with great favor on that development, but the question of responsibility for financing it has yet to be explicitly resolved by the states.

These new instructional forms and modes are not minor adjustments in education. They are revolutionary in their long-term consequences, and should be at the heart of the planning process in every state. Yet they are largely ignored or taken for passing fancy, soon to be outmoded by other fads. Robert Nisbet in CHANGE Magazine[3] recently called for reassessment of institutional missions and goals in the face of such change. He predicted that most colleges and universities will become more and more parochial, meeting local and regional interests and needs rather than national ones. Although some state leaders may grow smug by this turn of events, it does, nevertheless, call for a complete and detailed review and reassignment of roles, missions, and objectives of every state-supported institution.

Enrollment is an important element in this analysis of the educational context in which planning and coordination must take place. The facts show that the recent downturn in enrollments can be attributed to a change in the percent of high school graduates who attend college. During the 1960s, both the percent of students who completed high school and

the percent of those who went on to college increased substantially. These phenomena accounted in large part for the great tidal wave of college students during that decade. However, the Census Bureau data show that nationally we have already returned to the college-going rate of 1962, about 50 percent of the high school graduates and about 34 percent of the age group of 18-to-21 year olds.[4]

Yet, while the college attendance rates have gone down, the number of 18-to-21 year olds—the traditional college group—has increased substantially each of the past few years. In 1970 there were 14.6 million 18-to-21 year olds, while last fall there were 15.6 million,[5] an increase of one million in the three years when enrollments in some institutions dropped 30 to 40 percent and in most others leveled off. But this increased in the number of 18-to-21 year olds is a temporary condition. The number will continue upward to about 16.8 million in 1980 and thereafter drop rapidly. By 1984 there will be only 15.6 million, the same as the fall of 1973, and by 1991 the number should be near 13 million, the same as in the mid-1960s.[6]

Thus the decline in the college-going rate shows the competitive reality of the new institutional forms and means of offering education. Students turn from college to look elsewhere for education. Dislocations in enrollment now affect very unevenly the various states and different types of institutions within a state. Some continue to gain enrollment while others suffer substantial losses; and so it will be in the future, at least until 1992. The greatest drop in the number of college-age youth will occur in the last four years of that period, as a result of the reduction in actual number of live births since 1970. It is therefore unwise to consider these dislocations as temporary.

Enrollment Fluctuations Create Problems

The enrollment fluctuations among types of institutions create severe problems for state coordinating and budget staffs in reallocating resources; but within most institutions similar fluctuations take place among the disciplines, with a resulting need for substantial redistribution of resources. The Census Bureau reports that in the six years from 1966 to 1972 the biological and health sciences increased enrollments by 58 percent, the social sciences by almost 49 percent, and business and commerce by 30 percent. Conversely, engineering showed a 33 percent drop, physical and earth sciences down 30 percent, and education down by 10 percent.[7] The shifts within institutions may be even greater than these national averages, causing administrators and faculties grave problems in obtaining new professors in the expanding fields, while decreasing faculty (some tenured) in other fields—and perhaps accomplishing this feat within an institution which is steadily losing total enrollment and thus eroding its funding base.

Many state and federal policymakers seem to believe that certain management techniques, particularly those related to costing, if applied to the institutions of higher education, will solve most of the budget and resource allocation problems. The National Commission on the Financing of Postsecondary Education recently gave added impetus to this ill-founded assumption by encouraging individual institutions to report their unit costs on a voluntary basis in order to aid state and federal policymakers.[8]

Discouraging View of Unit-cost Analysis

Unit costs may be considered critical to effective internal operations of institutions in providing equitable funding among programs, in determining faculty allocations, and in assessing faculty productivity; but at state and federal levels their use is severely limited.

State agencies have previously used unit-cost factors in the formulas for budget development or as indicators or validators of trends relating to instructional units or degree costs, hence of value for program review purposes. But even for these objectives, unit costs will be less and less useful. Three major phenomena, all now present in varying degrees but which will have increasing importance, account for this discouraging view of the use of unit-cost analyses.

First, enrollment fluctuations among institutions and the states—along with the spectacular change in enrollments among the disciplines—make unit costs, whether of credit hours, clock hours, degrees or per FTE student, a unique phenomenon good only for that time and place. Even the same institution the very next year will show great changes in its unit costs. Mostly for reasons beyond institutional control, unit costs will—indeed do—vary greatly in the same program over time and the resulting hodgepodge of data across campuses will be of little use for policymaking at the state level.

Second, for those institutions which lose enrollment, unit costs are bound to rise—and for the indefinite future. Policymakers find it difficult to accept the fact that budgets do not go down in proportion to enrollment reduction. Why? Maintenance and operation costs of campuses with many new buildings and new acreage can hardly be reduced at all. The care and control of library collections, facilities, and services, greatly expanded in recent years, must be kept at high levels to serve few or many students, and to preserve the investment. Core administrators and faculty for essential programs will all continue to be rather fully financed whether students attend in small or large numbers. Also, as the income from dormitories, athletic facilities, eating halls, and student unions drops with student enrollment, money to pay off the bonds and continue operations must come from the current income budget. If these costs are

also added to the total instructional budget as logically they can be, unit costs will rise even more. Even if unit costs skyrocket for an institution rapidly diminishing in enrollment, policymakers will not make the decision on the basis of costs whether or not to close or to cut it back to correspond with enrollment; rather they will do so on political grounds. Unit costs are a technician's way of looking at the general welfare, not the way of the public policymaker who must assess the social need of the institution almost regardless of cost and estimate political consequences of closing it.

Third, the great variety of ways other than regular classroom instruction available and increasingly used (credit for a year abroad, community service, and life experience) do not lend themselves readily to unit costing, and some are so divergent from the norms (public media, video cassettes, independent study) that the proxies used for conversion to credit hours or other units distort reality so much that both policymaker and manager would be better served by political sensitivity and experience. Indeed, with off-campus centers, part-time enrollments, storefront operations, independent study, and credit for life experience, we find real difficulty in making an accurate count of students, much less in ascribing costs to them through a series of proxies and fictions.

Moreover, great complications arise in the use of costs as a result of the differential impact on regions and states of inflation as well as such factors as college-going rates, birthrates, emigration and other demographic factors which largely control enrollments and thus unit costs. None of these factors can be controlled by individual institutions—or states.

Given these current enigmas of programming, delivering, and costing education, reallocating resources, and eliminating institutions, how are the coordinating agencies and statewide boards attempting to resolve them?

Indepth Analysis Underway

The Center for Research and Development in Higher Education at Berkeley is now conducting an indepth analysis of the budgeting practices of 17 states as they relate to higher institutions. Among other concerns, we found the policymakers disturbed and frustrated by the lack of direction and the loose and disorganized manner in which colleges and universities confront present exigencies and fail to plan for more than the short run. Coordinating agencies are supposed to supply that planning, yet we found only a few instances of long-range planning of new initiatives in educational programming, setting goals, redefining missions, or establishing parameters for institutional development. The reason coordinators give for failure to plan is that they spend their time acting as negotiator and information gatherer-and-dispenser between the institutions and the myriad of state staffs. They were particularly critical of the number of different legislative staff members with whom they had to deal. Further, the concerns of these staffs often reflect the interest of a single legislator but take hours or even days of work by the coordinators. Coordinating officers state that with these pressures and with limited staff and resources, long-range planning and fundamental studies get short shrift.

As coordinators and planners fail to respond to long-range policy needs, the staffs of the political arms make judgments on current issues which may have many unanticipated long-term consequences. The political staffs are not employed to plan, nor does their training for the most part encompass the broad complexities of higher education. Their jobs often require quick answers to immediate questions, with little thought given to the equally valid alternatives or to their eventual consequences.

Unquestionably, the complaints expressed by both policymakers and coordinators have a good deal of validity. The proliferation of state staffs is matched by the proliferation of separate state agencies dealing with higher education and puts the board or council responsible for planning in a weak and ambiguous position.

The most tangible evidence of a viable coordinated system is ongoing planning, which both involves and keeps before the public the priority goals and objectives of the system. As organizational and procedural means for implementing plans are conceived and made public, better understanding and more commitment results. Thus the plans can guide the day-to-day decisions of coordinators as well as those very pragmatic ones related to state budgeting and finance. It is this kind of advice that the state wants and expects from coordinating and planning boards.

Agency Consolidation Needed

In previous statements on the subject of planning and coordination I have asserted that the evidence from scholarly research reveals that coordinating agencies among the states have done the most and the best planning for higher education.[9] Yet we still observe governors and legislatures attempting to solve the problems of bringing focus and order to higher education by consolidating all their institutions under a single governing board and abolishing the coordinative structure in the process. Now, because of federal intervention and insistence, each state has a 1202 commission, often in addition to whatever organizations previously existed. What needs to be done is twofold: 1) leave the existing governing structure as is or consolidate it in a consistently logical fashion as individual institutions face a change in function or closure, and 2) consolidate the student-aid agency, the physical facilities commission, the state coordinating agency, and the 1202 commission into a single planning and coordinating agency.

It is more imperative than before that, as educational forms and modes change, as new types of institutions emerge, and as the federal government aids students rather than institutions, that both the coordinative and statewide planning activities be lodged in the same agency rather than in competing ones. Legislators probably better than other policymakers know that plans and policy laid down by one agency are often altered almost beyond recognition by those who implement them in another agency. Putting both planning and coordinating functions in the same agency strengthens the hand of the state to respond rationally to the current exigencies, and those inevitably to follow in the next 20 years.

Placing full responsibility for planning and coordination in one agency does not require that the same professional staff perform both functions. To avoid dissipating all the agency's resources in grappling with current issues, the long-range planning staff can—perhaps must—be separately organized. Keeping such planning staff in close touch with the realities of institutional and agency operations is a challenge to management, but one which must be met.

The lack of such a coordinating-planning agency with a vigorous, imaginative professional staff increases the likelihood that long-range statewide planning will not be done at all.

Footnotes

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4. U.S. Bureau of the Census as reported in *The Chronicle of Higher Education,* March 5, 1973, 1(22), 1.
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MEETING NEEDS OF STATES IN SELECTED HEALTH PROFESSIONS

American Medical Education in the Year 209

William H. Knisely†

This is the 209th year of medical education in the United States of America. The founding of the University of Pennsylvania School of Medicine was in 1765. This perspective is important, because this educational process is obviously older by 11 years than the government of the country whose bicentennial we are preparing to observe.

Some three years ago, Dr. William R. Willard prepared an excellent monograph for the Southern Regional Education Board entitled "Medicine," in the series of papers which have been commissioned by the Board entitled "Manpower and Education Needs in Selected Professional Fields." Appropriately, some of the others deal with nursing, allied health, dentistry, computer science, agriculture, law, and social work. Clearly, education in each of these fields is relevant to thinking about and planning for the maintenance of health and the provision of health care.

Dr. Willard's study is being assumed by me as background for this discussion, even though many of you will not have read it before this discussion. The titles to the sections of the monograph are: Demographic Factors Affecting the Distribution of, and Need for, Physicians; Characteristics Relating to Physicians; Developments Within the Health Care System Affecting the Need for Physicians; Expenditures for Health and Medical Care; Medical Schools and Medical School Enrollment; Trends in Medical Education; Trends in the Delivery of Health Care; Policy Issues for the Future; and Educational Planning and State Service. A number of valuable tables are appended with compilations of information on these topics, as well as a very useful list of additional references for more information.

Although it is likely that many of you have not read this study, I am still assuming that it will provide you a background at a later time; first because it is available from the Southern Regional Education Board; and second, because those of you who wish to translate your thoughts into rational actions on medical and related education will obtain a copy, you will study it, and use the considerable information about this fourteen-state region as a continuing source of information in answering questions and in the formation of questions which we must answer together.

Dr. Willard is currently Dean of the College of Community Health Sciences at The University of Alabama in Tuscaloosa. Before taking this position two years ago he was Vice President and Dean of Medicine at The University of Kentucky. In those capacities he directed the development of that medical center. Previous to that he was Dean of the Medical School at Syracuse University, during the period in which the medical school changed from private to public status, and he held administrative positions in public health at Yale University, and was a public health officer in Maryland. Dr. Willard has had an immense impact for the good health of the people in this region, and in the United States through his understanding of the health care needs and how to marshal resources to provide education and services appropriate to those needs.

I have utilized the data in the Willard monograph on enrollments in and graduates from the medical schools of the region and brought them up-to-date by direct contact with each school. Included are first year enrollments, total enrollments, and the "annualized" numbers of graduates from medical schools in this region for 1974.

These data emphasize the rapid and significant increases in the number of first year places, in total enrollment, and, most importantly, in the numbers of graduates from the schools of this region during this brief span of time.

Although as indicated in the footnotes, there may be some minor errors of fact in both sets of numbers, there were approximately 3,490 first year places in 1971-72 and this has been increased this fall to 4,045 or by about 15%. The total enrollment, taking into account also a number of shortened programs, increased from 11,939 to 14,299, or by 19%. But, of most importance, the number of graduates was increased from 2,574 to 3,143 or by 22%. Take note also that an additional 921 graduates per year is to

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Enrollment:	First Year '71-72, '74-75		Total '71-72, '74-75		Graduates [1] '71	'74	Projected Further Annual Increases
Alabama							
U. of Alabama	126	125(24) [2]	411	363	87	119(113) [2]	24 [2]
U. of South Alabama	24	64	24	152		0	64
Arkansas							
U. of Arkansas	111	121	417	458	96	111	59
Florida							
U. of Florida	71	80	267	410	63	70	
Tallahassee input		35					
U. of Miami	130		479		100		32
U. of So. Florida	24	64	24	148	0	0	64
Georgia							
Emory University	99	104	353	406	66	99	
Med. College of Ga.	155	180	501	655	94	119	30
Kentucky							
U. of Kentucky	105	110	366	416	85	90	5
U. of Louisville	131	135	431	530	87	118	5
Louisiana							
LSU-New Orleans	153	144(30) [3]	569	580	126	136	
LSU-Shreveport	42	41	108	160	0	29	10
Tulane University	139	148	548	598	127	140	
Maryland							
Johns Hopkins U.	114	120	427	492	98	103	12
U. of Maryland	143	168	546	621	136	136	32
Mississippi							
U. of Mississippi	100	150	369	488	81	93	48
North Carolina							
U. of North Carolina	112	110	366	476	70	99	5
Duke University	112	114	412	450	96	106	5
Bowman Gray	80	89	291	348	61	73	10
East Carolina U.		20					20 [4]
South Carolina							
Med. U. of So. Carolina	164	165	490	649	81	134	20
Tennessee							
U. of Tennessee	207 [5]	208	672	607	189	190	
Meharry Med. Col.	99	200	354	683	80	163	20
Vanderbilt U.	75	83	281	323	59	77	
Texas							
UT Southwestern	122	200	440	615	102	112	75
UT Medical Branch	179	203	656	746	148	190	5
UT Medical, San Antonio	113	122	381	470	71	96	15
UT Medical, Houston	32	52	51	147	0	30	148
Baylor University	157	168	464	576	84	145	10
Texas Tech U.	36	40	36	143	0	24	68
T. Col. of Ost. Med.		61		191		19	36
TA&M, Baylor (&V.A.) [6]							32 [6]
Virginia							
U. of Virginia	123	133	389	468	86	114	9
Med. Col. of Va.	136	168	521	545	133	132	24
E. Va. Med., Norfolk		36		57			30
West Virginia							
U. of West Virginia	76	84	295	325	68	78	8
Totals	**3,490**	**4,045**	**11,939**	**14,299**	**2,574**	**3,143**	**921**

FOOTNOTES:

1) The year 1971 is used although the precise date to which these data apply is not certain. Further, during the current academic and calendar years, 1974, a number of the medical schools of the United States which have been converting from "four" to "three" year curricula are graduating more than one complete class. However, the figures listed, to the best of the schools' ability to determine, are the number of graduates who could be considered a single class. An example is the University of Alabama which this year had two classes graduate with 113 and 119 members. Only the 119 are included because that more correctly represents the annual production of physicians in the SREB region. Because we are in the middle of the

be expected within a few years. This figure is a hard one, based upon already funded construction, etc. The footnotes discuss additional potential increases.

To place meaning on these data all of these numbers would need to be related to simultaneously increasing total populations in this region, to increasing educational levels, and to other factors such as increasing average income, all of which increase the effective demand for health care.

Changes in the Undergraduate Medical Education

Four main changes have been and are taking place in medical school education. The length of time required has become variable. There has been a significant pressure to reduce the total time to three years by the Federal government, through the provision of more money to a school for three-year students than for those utilizing four years. It is worthy of your understanding, however, that where a choice exists a number of students opt for four years of education rather than three. And, it is of particular importance that many schools are making the total time a possible variable, while the acquiring of specified information and technical competence are measured for graduation, rather than the completion of a specified number of years. This is exceedingly important because it permits the most able students to finish in less time and those students who, for any reason, need more time to learn the information and the skills in four or more years.

A second change has facilitated the first; namely, the use of different methods of education. Thus, the use of several media; slides, tapes, television, and encapsulated modules of materials are all becoming available to these students. The use of a computer to pose questions and to respond to answers, the use of computerized programs with which the student can interact instead of, or in addition to a professor, all are becoming part of the undergraduate medical education process. Because such instrumentation is being utilized, it is possible for individual students to progress at different rates. It is possible also to measure the content of the information and the desired changes in technical competence as end points in education, rather than a specific time period.

A third significant change is the content of what is considered appropriate undergraduate educational material. While I will not spend much time on this, the following are a part of the changes in the content of medical education: the desire for more humanities and more social sciences, the desire for a broader spectrum of educations in a given professional school class, the inclusion in some institutions of more mathematics, calculus for example, the inclusion of the knowledge of how to interact with and utilize computers, and the frank taking advantage of the higher levels of education by [illegible] applicants.

The fourth change is causally related to the other three; namely, the places where undergraduate medical education is occurring. Some of these are in laboratories with computer, television, slide, tape, and/or film capabilities, rather than for example, dissecting rooms or wet laboratories. Additionally, in such places as well baby clinics, outpatient departments, health departments, institutions for the elderly, and the offices of private physicians, more emphasis is being placed upon monitoring the probably well individual rather than focusing most of medical education upon the curing of disease states. Almost all medical schools have made some of these changes.

Related Changes in Both Pre-Professional and Post-Professional or Post-Graduate Medical Education

Brief comments are called for concerning both the pre-professional school and post-professional school education of physicians. Again, the same four categories of changes are taking place. The time in college is being shortened for some students. In our four medical schools last year 14% were admitted without a bachelor of science degree. Because of an

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doubling-up year, it is likely that somewhere between three and four hundred additional graduates have received their degrees in the 1973-1974 period, but whatever that figure is, it is only a one-time addition to the total of 3,143.

2) The University of Alabama is accepting 24 transfer students into its clinical educational program in addition to its 125 first-year students. The acceptance of these additional transfer students is part of an expansion of clinical education within Alabama into the Huntsville and Tuscaloosa areas; and, as indicated, there will be 24 more total graduates as is indicated in the Projected Further Annual Increases column.

3) Louisiana State University has had a reduction by 10 in their freshman class; but, LSU will expand by an additional 30 into the new facilities of their dental school if permitted to do so by the Liaison Committee. Because as of this writing, approval has not been obtained, they are not included in the Projected Further Annual Increases.

4) East Carolina University will admit 20 students. Clinical education will be in combination with other state students.

5) The University of Tennessee was listed as having 107 entering students in the previously published data. This is assumed to be an error, for that is approximately the number taken twice each year. This assumption is affirmed by the numbers of graduates which approach 200 in both the previous data and in the current year. For this reason, 100 has been added to the previously published total.

6) Texas A&M University and Baylor College of Medicine have authorization for a six-year program for 32 students to begin in 1975. They also have a Veterans Administration medical school application which could expand that project.

The Texas Veterans Administration school is one of four potential ones within the SREB region. Thus, additional in[illegible]es will occur if and when one or all of the proposed Vet[illegible]dministration-supported schools open in South Carolina, [illegible]e, Texas, and West Virginia.

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interest in medicine by some individuals who have had considerable education and experience in other fields, time has also been lengthened for a few individuals. The content and the methods of pre-professional education reflect similar technical changes as in the professional schools. Medical schools are selecting some students who have had social science or humanities majors as well as retraining a large number of accepted applicants from the biological and physical sciences. While undergraduate education still occurs mainly in the general colleges, the places where post-graduate education is occuring now includes outpatient clinics, community hospitals, schools, storefront clinics, etc.

The Questions of "Numbers Needed" and "Distributions Desired"

Many efforts have been made to determine the number of doctors needed for a given area, population, or specialty. Although such studies are necessary and must continue to be carried out as part of the bases for public policy, they seem to be of little value when one is faced with the dilemma of a personal medical problem and no way to obtain a physician's attention. The recent increase in graduates in the Southern region is very significant and the projected additional 921 makes the effort truly remarkable. However, in my judgment, we need significantly increased numbers of graduates beyond these if we are going to provide both the preventive measures which would be wise and the care and cure assistance which will be required.

The statements currently being made concerning "Whether more doctors are needed," or "Whether, simply a different distribution is all that is required," can in my judgment both be analyzed by the same approach. If we are training too many doctors or if we only have too few in some places, then there must be some areas with too many of some kind. And, those places where there are too many of given types should be studied to determine the consequences.

For example, some postulate that "Too many doctors in one place cause a rise in the cost of medical care." I am not an economist but it would seem to me that this is in direct opposition to all economic theory. While, to my knowledge, we have not had an obvious over production of doctors in the United States for any long period of time of any given type, there is a situation of that variety in West Germany. In that country many doctors do things other than practice medicine. Just as in the United States, many school teachers from time to time have done other things than teach.

It would seem to me that two existing circumstances argue strongly for significantly increased number of entering places in and graduates from our medical schools. The first is the fact that there are many more well qualified applicants than places, and the percent is increasing. In the twenty-one year period between 1952 and 1972, the number of applications in the United States for the number of total places available has fluctuated from a low of 1.7 in 1960-61 to a high of 2.6 in 1972. In Texas in 1973, we had 4.1 applicants for each place. Even though we discourage out-of-state applications there were some. Yet, taking only Texas residents we had 3.6 applicants for each position. As of this year's entering classes with an increase of 55 places available for a total of 578, there were 4.6 applicants per place; 3.23 were from Texas residents. Taking into account the fact that some of these went to Texas Tech and Baylor, Texas still has a significantly higher number of applicants than the national average, even though the state has tripled the number of places available in 10 years.

The point being made is that significantly larger number of young people want to attend medical school than is possible.

The other relevant fact is that the number of graduates of non-United States or Canadian medical schools, referred to as foreign medical graduates, entering this country, has increased to the level of approximately one-half of all trainees and of all new licensees. In my judgment, it is not only immoral for this country to continue to take half of its physicians from significantly lesser developed countries, but to do so when we have more young people applying for every position, is also unwise. How can we explain these actions to our own children?

In my judgment, even if we create a recognizable excess number of physicians for some brief period of years, and some of them go into some other field as a consequence, such a policy would be a better one than to continue excluding more than half of our own young people who wish to become physicians while taking that number of doctors from other nations.

Specifically, in this fourteen-state region, I would urge the legislators to do everything possible to reduce the tendency for the employment of foreign graduates in state institutions.

I would urge your consideration also for actions which would assist in the wider distribution of post-graduate educational opportunities. Consideration should be given to supporting the educational part of the training of house staff. This can occur in community hospitals in those areas where physicians are needed. It is a potentially effective means of helping that distribution. I would urge you to consider scholarship money as an incentive to those applicants to medical school who would return practice in an area of need on some basis such as two years minimum and a year for each year of support beyond the two years. Perhaps the Southern Regional Education Board might seek such scholarship funds and thereby help reduce the state barriers in the region.

Because the number of young people unable to enter American medical schools has been high and is rising, the new problem of American graduates of

foreign medical schools must also be addressed. In a recent action of the Texas State Board of Medical Examiners, they added the so-called Fifth Pathway, as defined by the American Medical Association, but it also requires the passing of the ECFMG exam. This action seems to make sense both in making the potential return to this country easier, and in continuing to meet the serious responsibility of assuring that a competent education has been obtained before a license is granted.

Continuing Education and the Assurance of Continuing Competence

Two closely interrelated subjects should be discussed; the continuing education of the practicing physician, and the very sensitive question of some form of reassuring the public of continuing competence. While the concept is not new (it has been applied to engineers, pilots, and others for years), its application to the profession of medicine has begun only recently. Fortunately, the beginning of relicensing has been on a voluntary basis by some medical associations and some specialty groups, but also it has been made a requirement in some states.

Because the health professions have been high income earning professions, many government bodies have taken the understandable position that the continuing education of a high earning profession should be supported by the professionals themselves. Unfortunately, this does not lead to well organized education, nor to widespread use of the opportunities. Fortunately, there is currently a strong move on the part of the American Medical Association and at least the Texas Medical Association, to develop continuing education and to accredit the institutions providing such education. As far as I know voluntary action in this sphere, just as voluntary action in reassuring the public of the continuing capability of the practitioners, is preferential, to everyone, to any form of government, regulation, and requirement.

I would hope that the Southern Regional Education Board, the individual institutions, and the individual state governments will cooperate in assisting the voluntary development of these two important and closely interrelated processes.

Advising and Counseling of Pre-Health Professions Students

The most serious problem which we face in health professions education today, in my judgment, is the very large number of young people seeking entrance into specific professions—medicine, dentistry, veterinary medicine, etc.—who are not able to enter. Therefore, the most serious unmet need is significantly increased counseling and guidance in the college years. I should probably add in high school and even in junior high school. If it is at all possible, support must be given to these several levels of educational institutions for counseling and guidance which will provide informed assistance as to the genuine likelihood of being accepted into a given program and, perhaps even more importantly, an awareness and knowledge concerning alternative career choices in the health professions which are attainable. In the State of Texas counseling and guidance is not a function for which Coordinating Board formula support is assigned in the college budgets. Therefore, the health professions counselors and guidance people must either do this in addition to their other personal assignments or the institution must attempt to provide such counseling and guidance without direct budgetary support. I would urge serious consideration of increased support from the junior high school level on through college for all professional and technical opportunities.

Meeting the Needs of the States for Optometrists

Henry B. Peters†

It is a pleasure for me to participate in this important panel on health manpower. This discussion comes at a particularly propitious time. The matter of optometric manpower and optometric education is under serious study by a number of your states; and the Southern Regional Education Board has appointed a special committee to make recommendations regarding long range developments in this field. I serve on this committee.

Optometry is a licensed profession in all 50 states and has been since the beginning of this century. Optometry serves the vision care needs of the vast majority of patients with eye problems, with particular emphasis on vision performance. Optometrists, too, serve as primary providers of health care and in this service detect and refer patients with general health problems, ocular disease and ocular manifestations of systemic disease, to physicians for definitive diagnosis and treatment. The present day optometrist is exceedingly well educated for this dual role.

There is a great need for vision services within the legal bounds of optometry. Among children of elementary school age about one in four, 25%, have vision problems that interfere with their educational progress. Even in a wealthy community where I once did a detailed study of the vision problems of children there were at least four children in each classroom who had uncorrected vision problems, that were serious enough to interfere with the child's education—unknown to teachers, school nurses, parents or the child himself. The percentage of people needing optometric services for best vision performance increases with age. By the age of sixty almost 100% of the population needs optometric services for one or more daily tasks, such as, reading, detail work, driving, watching television, etc. These two age groups, the school age children and those over 60, are the high risk groups - the former to ensure their educational development and the latter to preserve their way of life and the early detection of eye disease.

Need is not the same as demand in the lexicon of health planners but surely the development of the Early Periodic Screening Diagnosis and Treatment Program as part of Medicaid will translate children's needs into demand. Similarly the development of National Health Insurance, which can't be far off, will provide the mechanism which will convert the vision care needs of many adults into demand. The vast majority of these needs/demands for vision care services are within the legal scope of the practice of optometry. Of all the people who need vision care approximately 90% have problems that can be adequately served by optometrists, 7% require specialized medical and surgical services, the remaining 3% are blind. There is no question that there is both need and demand for optometric services.

Currently twelve schools of optometry are operating in the United States: Pacific University at Forest Grove, Oregon; University of California at Berkeley, California; Southern California College of Optometry at Fullerton, California; University of Houston at Houston, Texas; Illinois College of Optometry at Chicago, Illinois; Indiana University at Bloomington, Indiana; The Ohio State University at Columbus, Ohio; Southern College of Optometry at Memphis, Tennessee; University of Alabama in Birmingham, Alabama; Massachusetts College of Optometry at Boston, Massachusetts; The State University of New York in Manhattan, New York; Pennsylvania College of Optometry at Philadelphia, Pennsylvania. All of these institutions offer a four-year professional program, based on a minimum of two years of preprofessional prescribed collegiate study, leading to a Doctor of Optometry (O.D.) degree.

In addition, this year legislatures have authorized the development of three new schools of optometry: in Florida, Missouri and Michigan. The Virginia legislature has authorized a study of the need for a school of optometry in that state.

Of the existing schools of optometry seven are in universities, five are free-standing non-profit institutions with various ties to local universities. Six of the 12 are in state-supported institutions. All have received substantial support from the Federal Government in grants and contracts for operating, program development, research and construction funds. The three new schools under development will all be in state-supported institutions.

With this general background let us now look at the problem assigned: "Meeting the needs of the sates for optometrists."

First we will consider the question of need. Is there a need for more optometrists? How can this

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need be assessed? What criteria are available? While I recognize the inadequacy of using ratios to population as the measure of manpower need it is one of the ways of looking at this. Our Southern states look rather bad from this perspective. The national average is 9.1 optometrists per 100,000 population. Our Southern states range from a high of 7.9 to a low of 4.3. All the states in the lowest 25% are in the Southeast except Alaska and New Mexico.

There is another way of assessing the need for optometrists. The Bureau of Health Resources Development, Health Resources Administration, Department of HEW has established critical shortage areas for optometrists for purposes of cancellation of health professions student loans. A student who borrows money from the Federal Government to attend optometry school may have up to 85% of this loan forgiven if he establishes his practice in one of the "critical shortage" areas for a period of three years. There are 806 such areas designated in the entire United States, 72% of these (578) are in the 14 SREB states. While optometrists are widely spread they are clearly very thinly spread in the SREB states. There is then ample justification for our concern for optometric manpower and a demonstrated real need.

If we assume that a reasonable and very conservative goal is to provide optometrists at least at the level of the national average (9.1/100,000) we have a deficit in every one of our states. Presently we have a total deficit of 1,697 optometrists in the SREB states, a deficit of 30%, just to meet this conservative goal. I point out that the American Optometric Association, after studying practice utilization and public demand under proposed national health insurance, recommends 14.3 optometrists per 100,000 population.

Each of our states supports optometric education, either directly, as in Texas and Alabama where there are schools of optometry in state supported universities, or through contracts for optometry students, through the mechanisms and under the sponsorship of the SREB. Other regional education compacts, and individual states, in other parts of the country have started to develop programs based on the SREB model of support for optometric education.

There are three schools of optometry in the SREB region, at Houston, Memphis and Birmingham. At present Houston admits 72, Southern College admits 150 and Alabama admits 25 students per year. Alabama will increase the size of its entering class to 40 in 1975. Houston will increase the size of its entering class to 100 in 1977, but Southern College of Optometry expects to reduce the size of its entering class, in steps, to 75 by 1980. Thus the educational opportunities for optometry students will actually decline from 227 in 1974 to 215 in 1980 if all present plans of existing schools are carried out. The development of a new school in Florida will add an estimated 60 places by 1980, however, and thus we can reasonably expect the total entering places for optometry students to be 275 by 1980.

It is important to note that there are many more qualified students applying for admission to optometry schools than can be admitted. In 1973 there were between six and eight qualified applicants for each available space in the schools of optometry, after eliminating the multiple applications. More than 7,000 students took the Optometric College Admissions Test and there are less than 1,000 places available in all the schools of optometry. If we had the educational resources, we could provide the optometric manpower to supply the services needed by the public.

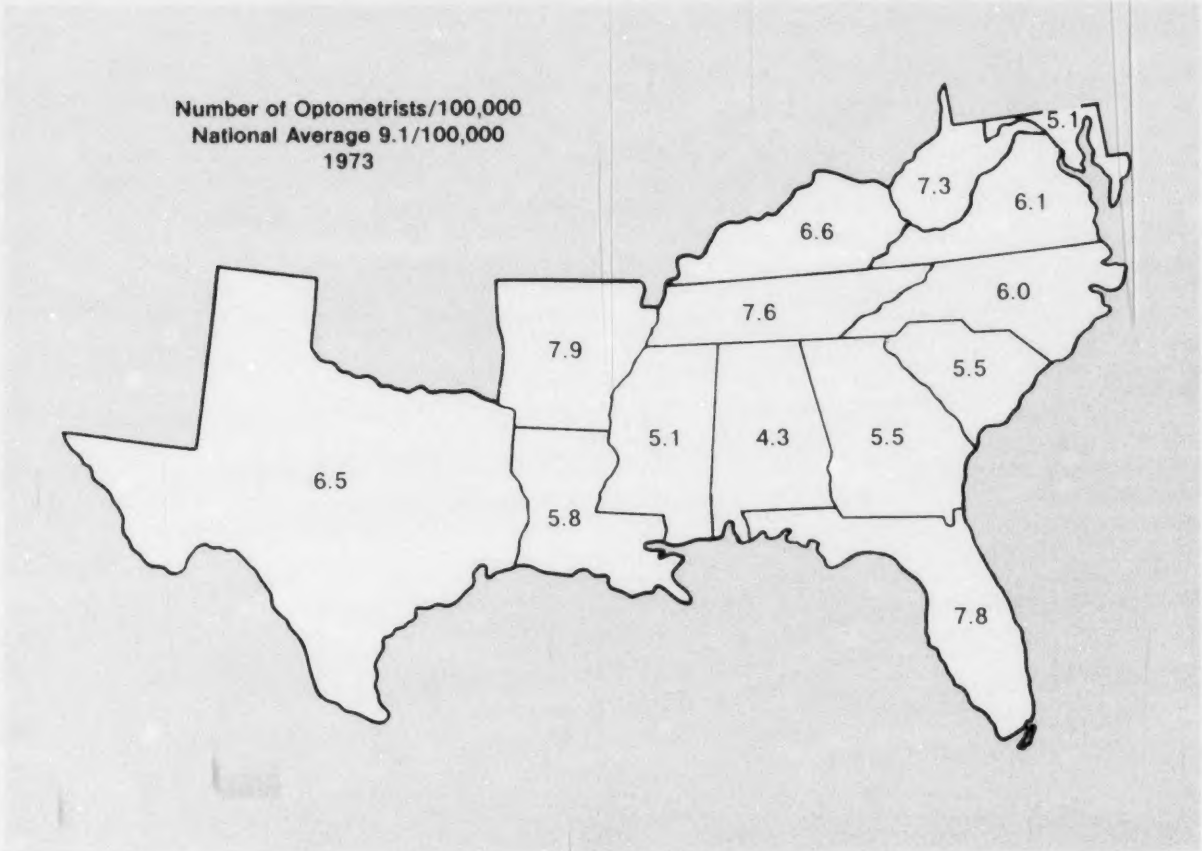
How does this relate to the need? Presently there are 129 contract places supported by states that do not have optometry schools. The needs of Texas will absorb almost all of the graduates of Houston and that school is under pressure to increase the number and percentage of in-state students. Alabama must commit 25 of its entering places to Alabama residents. Clearly we are running out of places for contract students. If we calculate the number of students per year required for each state in order to provide the national ratio (9.1/100,000) by 1990, we find we need a total of 355 students entering optometry school each year in the SREB region—starting in 1974 through 1990.

What are the alternatives to the solution of this obvious and serious problem? I wish now to discuss the only ones I know - there are six of them.

1. **Attract out-of-state optometrists.** This has not been the pattern in the past, except for Florida. Students from our SREB states have gone to schools outside the region in the past, notably Pennsylvania and Illinois, and returned, but a study of presently enrolled students, by state-of-origin indicates that this practice is no longer as widespread and cannot be expected to provide the optometric manpower requirements of our states. In every profession the student most likely to establish practice in a Southern state is a resident who obtained his education in that state or in the region. It may be possible to encourage young out-of-state graduate to settle in your state but this will produce a marginal result at best. Your experience in trying to recruit physicians verifies this.

2. **Expand the service capability of each optometrist by developing technicians to assist him.** This is a viable alternative and one that should be explored. Technicians are less expensive to train and an optometrist with a trained optometric technician can perform high quality services for approximately 25% more patients per day than the optometrist working alone. But few optometrists today work alone, most have on-the-job trained assistants. While a formally trained optometric technician will perform a greater number of services and more efficiently, usually, than an on-the-job trained person, the margin is reduced. Secondly, optometric technicians, to be

Ratio of Optometrists to Population in SREB Region



adequately trained and integrated into the clinical service, should be trained with optometry professional students in a school of optometry. All three schools of optometry in SREB region have optometric technician programs. If new schools of optometry are developed they should plan to include an optometric technician program. A final problem needs to be mentioned and that is that optometrists, not trained in the utilization of optometric technicians, have difficulty accepting them. This is the old problem of protecting your turf. The new optometrists, trained with the technicians, are able and willing to integrate them into their practice. Thus this alternative will take time to show benefits.

3. **Organization of the delivery of service.** It is possible to organize, or reorganize, the delivery of health services to increase the efficient utilization of optometrists. I believe that there is a trend, particularly in our urban centers, toward the institutionalization of health services; that is, development of community health centers, ambulatory services related to hospitals, etc. Such organization results in efficient delivery of optometric services. But this solution is not likely to be successful in the rural areas of our states, of which there are many.

4. **Development of technology.** The recent development of automatic refractometers and visual field plotting devices indicates that it will be possible to expand the service capability of optometrists through the use of advanced technology. While many of these new instruments are very expensive, they will expand the number of patients served. This will require some retraining of optometrists and considerable capital outlay but this is a viable alternative that should be explored. Technology, however, frequently expands the quality and quantity of service by providing both additional examining techniques and new treatment modalities. This effect is to use more manpower, thus the total effect of developing technology is not entirely clear.

5. **Alternate kinds of professional services.** You are all aware that opthalmologists provide services that to some extent overlap optometric services. To the extent of this overlap, it should be possible to substitute ophthalmologists for optometrists. There are several considerations here. The first is that it is

significantly more expensive to train an ophthalmologist than to train an optometrist.—about three times more expensive. Ophthalmologists are uniquely trained in the surgical and medical treatment of the eyes which conditions account for only about seven percent of all vision problems. The employment of such expensively trained personnel for services to patients who do not require medical or surgical treatment is uneconomical. Secondly, because ophthalmologists require hospitals and special surgical equipment, they settle in areas around major medical centers. Their distribution in each state argues strongly against this alternative as a viable solution. A better alternative is to develop a cooperative working relationship between optometry and ophthalmology and a rational division of services to provide the optimal utilization of both professions.

6. **Develop additional schools of optometry.** Even with the conservative goal of reaching the present national average of 9.1/100,000 there are required 355 students entering schools of optometry each year in the SREB region, starting this year. We will not have this many places available, so we are falling behind. The longer we postpone action the greater will be the deficit. The USDHEW Division of Manpower Intelligence predicts that by 1990 the national average will be 9.5/100,000. To reach this ratio will require an even greater effort. To provide the present national average those states that do not have optometry schools require 263 student places per year for contract. Only 129 places are under contract in 1974. There simply are not 134 more places for contracts. I believe we must seriously consider the development of additional schools of optometry.

What then should you consider for meeting the needs for optometric manpower in your state? I believe there are only two productive alternatives. The first is to increase the number of contract places for optometry students. Since the schools in the SREB states are at capacity and have contracted for almost as many students as they can accommodate it may require that you go outside the SREB for contracts. Pennsylvania offers an opportunity for a few more places. Secondly it may be possible to increase the capacity of the schools by increasing the amount of support provided by the contracts. In my institution, for example, the contract support pays only about one-sixth of the per student cost. Increasing the contract amount may well serve as an incentive to increase faculty and staff to provide more entering places for contract.

Finally I believe that the only long range solution to the problem is to develop additional regional schools of optometry. You have the mechanism for providing some operating budget support that can cross state lines. If this can be made more equitable there would be incentive to start new schools of optometry of a size that exceed state requirements to supply regional needs, even in states that would have difficulty financing a school of optometry of their own. The big problem is capital outlay. So far there are few examples where capital dollars have crossed state lines. If this mechanism can be developed new schools could be started on a consortium basis to serve regional needs. This is a real challenge but is clearly within the philosophical framework of the Southern Regional Education Board. It is within your power as legislators to exercise the creative leadership necessary to bring this about. You have done it before and you can do it again. The visual welfare of the public will be served by such action.

The Association of Schools and Colleges of Optometry has issued a statement on guidelines for the development of new schools of optometry. A copy of this statement is in the packet of information on each state. There are several important points worthy of emphasis. The first is that new schools be located in academic health centers with other health professions educational programs to increase communication and cooperation, share basic science and clinical resources, and reduce costs by eliminating duplication. This position is endorsed by the association for Academic Health Centers. There are 25 such academic health centers in the SREB states, two of which have schools of optometry.

The second important consideration is that a school of optometry should be located in a community with a population of at least 200,000 to provide the clinical base and significant numbers of unusual vision conditions required for excellence in teaching.

So we have the students, we have the locations and we have the need. The challenge to you is to create the political climate that can provide the resources to pull it all together.

Meeting Needs of States in Veterinary Medicine*

W. S. Bailey†

Introduction

Few specific questions involving higher education have been more widely studied, discussed and debated during the past few years than those relating to the need for more veterinarians and the expansion of veterinary medical education opportunities. This has been particularly true in the SREB states, where the ferment has been more intense and where more action has been taken in meeting perceived needs. That this is "where the action is," to use a trite expression, is due in no small part to the activity of the SREB over the years in providing a continuing forum for compact state representatives to try to assess the needs of veterinary medical education and to evaluate alternative approaches in meeting them. This has been an appropriate role for SREB, for those of you familiar with its development and evolution will agree. I am sure, that the need for more equitable access to veterinary medical education contributed significantly to the development of the compact programs which have, over-all, been mutually beneficial to participating states and institutions. And whether one takes the position that the currently planned expansion of veterinary medical education is "because of" or "in spite of" the SREB—and we should recognize at the outset that there are proponents of both points of view—it is an established fact that the SREB has promoted the deliberations which have contributed to these developments.

Time does not permit, nor is this the appropriate forum for, a detailed review and evaluation of the various studies, analyses and conclusions which have led to the actions in the SREB states to ameliorate the problem of the shortage of veterinarians by increasing opportunities for entry into the profession. Likewise, it is certainly not for me to pass judgment on any state legislatures, higher education authorities, or individual institutions for actions taken to meet perceived "local needs," regardless of how widely these actions may diverge from those which I believe to be in the long range general public interest.

Rather, I want to give you a brief report on the status of actions being taken in the SREB states to meet perceived needs, mention some of the activities underway in states outside our region, say a little about some of the problems in identifying and quantifying needs in veterinary medicine and, finally, comment briefly about some of the prospects for the future.

Before proceeding with these specifics, however, a brief comment about the general conclusion of all recent studies about veterinary medical manpower is appropriate. That there is an aggregate shortage of veterinarians in the United States and that this shortage is expected to continue for some time in the future seems to be universally agreed. The same situation prevails in all regions or states for which studies have been made, insofar as I am aware. As would be expected, there is less than unanimity of opinion about the extent of the shortage and, particularly, about the most desirable long-range solutions to the problem.

Current Status of the Evolution of Veterinary Medical Education in the SREB States

A. Existing Schools:

Initially five schools participated in the SREB program in veterinary medicine: Auburn, Georgia, Oklahoma State, Texas A & M and Tuskegee. Because of enrollment pressures, Texas A & M was forced to restrict enrollment to Texas residents and recently Oklahoma State has withdrawn from the compact program, but will, I understand, contract with individual states for spaces on what is basically a full-cost reimbursement. This left only Auburn, Georgia, and Tuskegee to serve the other states until L.S.U. admitted its first class of 36 in January, 1974, as the nation's 19th college of veterinary medicine. L.S.U. was scheduled to admit 48 (12 of whom were to be from SREB participating states) new students this fall and to move to a full class of 80 in the fall of 1976, with 25 of these to be "regional program" students.[8]

The University of Georgia, with a $5 million appropriation to expand facilities has been approved for an increase from 76 to 86 students for this fall

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*The views expressed herein are the personal opinions and judgments of the writer and in no way should be interpreted as representing the position of Auburn University or any of its officials or academic units.

('74)—all of whom are to be from Georgia, bringing the enrollment of Georgia residents to 39 for the entering class. By 1980, university officials hope to increase this to as many as 50.[5]

Auburn continues at its full capacity first year enrollment of 115, of which 80 spaces are committed to regional students through the fall of 1975, after which time it is anticipated the regional spaces will be reduced to 65 as more spaces become available in the new schools.[10]

Tuskegee Institute also continues at its current capacity of 45 entering students, 28 of whom are regional students. The same enrollment is projected for 1975. Renovation and new construction currently underway will permit an increase to 55 entering students in 1976 and 65 in 1977, with some of the additional spaces available for regional program students.[3]

B. Developing Schools:

It is my understanding that the first class of approximately 40 students is scheduled for enrollment in the new school at the University of Florida in 1976, with the entering class size to increase to 80 when the facilities are completed, probably in 1978. The University of Florida is expected to provide spaces for regional compact students, possibly as many as 25 per class of 80,[8] but there has apparently been no formal commitment about the number of regional spaces. If the enrollment pressures by Florida residents continue as strong as in recent years, it may be very difficult for the university and state officials to accept a significant number of out-of-state students, particularly if the state bears the full cost of the development of facilities, which apparently is anticipated.

C. Schools in Planning Stage:

Both Mississippi and Tennessee have funds appropriated for planning of academic and capital development programs; deans have been appointed; and planning apparently is on schedule for presentation of the projected programs and budget requirements when their respective legislatures meet early in 1975. From **informal** information, it is my understanding that both states are expected to appropriate funds for implementing the programs at Mississippi State University and at the University of Tennessee, Knoxville.

Mississippi State University is projecting enrollment of the first class of 32 in 1978, to increase by 1981 to 64 professional students in the entering class. Until the class size reaches 42 (probably '79 or '80), enrollment is expected to be restricted to Mississippi residents. After that point, the prospect of accepting out-of-state students (hopefully regional) is being entertained. I understand that there is currently strong feeling for a direct state contract program, but the decision on this will be made later.[9]

Present plans of the University of Tennessee[1] provide for the admission of a class of not more than 40 in 1976, provided their new building is then under construction, with the class size to be increased to 80 by the time the third class is admitted. No definitive decision has been made, but it is anticipated that 50-60 of the 80 spaces will be reserved for Tennessee residents with the remainder available for states participating in the regional program. It should be noted that the professional curriculum at the University of Tennessee is being planned for year-round operation, as has been the pattern for their medical college for many years and for the colleges of veterinary medicine at Texas A & M and Michigan State for a number of years. However, at least three years will be necessary for completion of the pre-veterinary requirements, and for most students the time may even be longer.

Planning funds were also appropriated by the Virginia Legislature this year. While these funds have not been released by the governor, approval has been given for the use of other funds for this purpose, and a dean has been appointed to assist with planning of a new school for V.P.I. However, recent newspaper reports indicate that prospects for an implementing appropriation next year are not bright.

D. Schools Under Consideration:

A 1972 study recommended the establishment of a school of veterinary medicine in North Carolina, to be accomplished in four phases—the first of which was the creation of a department of Veterinary Science. This was done in 1973. Further action is apparently being held in abeyance until consideration by the 1975 General Assembly of a special report from the University of North Carolina on the subject of how to provide additional veterinary medical services for the state.

The 1974 Kentucky General Assembly established a legislative advisory committee to study the feasibility of developing a veterinary school in Kentucky and to report its recommendations to the Legislative Research Commission which will review the committee suggestions and make final recommendations to the 1976 General Assembly.

The Arkansas Legislature recently passed a resolution asking the Department of Higher Education to make a study of the feasibility of a veterinary college in state.

Three years ago the Texas Legislature authorized the establishment of a new college of veterinary medicine at Texas Tech but did not appropriate funds to implement the program, and interest in it seemed to wane. Now, however, it is reported that interest is again being manifest and that the institution's administration has been asked to submit to the Texas Coordinating Board a plan for a new program. It is my understanding that a plan for significantly expanding the enrollment at Texas A & M has also been developed and would probably be considered as an alternative to a new program at Texas Tech.

To complete the overview of developments in the SREB states, I should perhaps mention that the wording of the legislation establishing the Uniformed Services University of the Health Sciences (which is being located adjacent to the National Naval Medical Center in Bethesda, Maryland) appears to authorize not only the college of medicine now being developed but also other health science programs, including veterinary medicine. In fact a recent news article indicated that other colleges such as dentistry and veterinary medicine would be developed as a part of the university later. For the hearings on this legislation, the A.V.M.A. submitted a written statement in which the view was expressed that establishment of a curriculum of veterinary medical training within the Uniformed Services University was not considered practical and recommended, instead, that the legislation be broadened to provide an Armed Forces Health Profession's Scholarship Program under which veterinarians could receive their education in existing colleges and then enter the armed forces to provide the required veterinary services. I do not anticipate active support for development of a college of veterinary medicine as a part of the Uniformed Services University of the Health Sciences, though—in all candor—I must say that the geographic location offers many advantages when one considers the extensive resources in the immediate area of the Naval Medical Center: the National Institutes of Health, Walter Reed Army Medical Center, the U.S. Department of Agriculture and the University of Maryland.

Current Developments Outside the SREB States

Just as decisions affecting veterinary medical education in a given state should take into account other relevant actions in that region, so decisions in one region should be influenced by actions in other sections of the nation. Consequently, this overview would be quite incomplete without brief mention of at least the major actions being taken and considerations underway in other areas which will affect the veterinary medical manpower pool.

A. New England and New Jersey:

As a result of studies published in 1972 and 1973, [12,4] it was recommended that a college of veterinary medicine be established at the site of University of Massachusetts Medical School at Worcester to serve the six New England states and New Jersey. Currently, however, New Jersey is engaged in advanced negotiations with the University of Pennsylvania for enrollment of a specified number of students each year under direct contract. If this should materialize, it would apparently remove New Jersey from consideration as a participant in the cooperative regional college in New England. According to a recent report[7] optimism has been expressed over the prospects for a favorable vote by the Massachusetts state legislature to establish the college if at least two other states participate in the program. Strong effort will undoubtedly be made in 1975 to secure legislative approval for this program, but it would be unrealistic not to recognize an inherent problem in the proposed program: the participation on a cooperative basis in a capital development program in another state will not be politically attractive, particularly in a period of depressed economy, regardless of the gravity of the manpower needs for the region.

B. Wisconsin:

For several years efforts have been made to establish a college in Wisconsin and at least two consultants' reports (the latest in early 1974) have recommended that this be done. According to my latest information, the administration of the University of Wisconsin asked the Board of Regents for more time to explore alternatives, particularly a "regional college" arrangement through contract with the University of Minnesota.[6]

C. Upper Rocky Mountain and Plains Region:

The Old West Regional Committee has recently advertised for proposals to conduct a feasibility study of veterinary medical manpower/education needs in that region - comprising, as I understand it, the Dakotas, Nebraska, Montana and Wyoming. At least two proposals reportedly have been submitted, but I have no further information about the status of the project.[6]

D. Southwestern U.S.:

A feasibility study published in 1972[11] recommended the establishment of a college of veterinary medicine at the University of Arizona in Tucson. However, such a program is apparently not under active consideration at the present time.

Informal efforts have been made to promote the establishment of a college elsewhere in the southwest, but these seem to have gained little support or momentum.

E. Washington/Idaho/Oregon:

One of the most interesting and exciting developments in veterinary medical education is the "shared curriculum" program which is being implemented this fall as a cooperative venture between Washington State University* and the University of Idaho, and which may be expanded next year to include Oregon State University. Very briefly, the plan provides for an expansion of the enrollment at Washington State University (now designated in the context of this program as Washington State University/

*Washington State University has been awarded a contract of $100,000 to study the various aspects of the shared curriculum.

Northwest College of Veterinary Medicine) made possible by an appropriation by the State of Idaho for additional faculty who will participate in the over-all instructional, research and service program of the college. Part will be done at the Pullman, Washington campus (where the students will spend the first 2½ to 3 years of their professional program), part at the Moscow, Idaho campus (which is only a few miles from Pullman) and part at a new food animal clinical facility at Caldwell, in southern Idaho, to be constructed by the state of Idaho. **No state will provide funds for physical facilities in another state for this program.** In the first year, eight students from Idaho will be admitted under this program, and the number will increase each year to a maximum of 15 in 1977. If the negotiations with Oregon culminate in the incorporation of that state in the program, it is projected that the first-year enrollment at Washington State/NW could increase from its current 66* to as many as 110-120 (15 of whom would be from Idaho, 30 from Oregon and 15-20 from other WICHE States). There are many attractive features about the program, aside from financial economies which can be realized by the participating states, and I commend it to you for careful study if your state is considering alternative approaches to increasing the opportunities for access to veterinary medical education and improved and expanded veterinary services.

F. California:

A proposed plan for expanding veterinary medical education in California incorporates several of the principles of the Washington/Idaho/Oregon shared curriculum program, adapted to a large, highly populated state with a multicampus university system. The following actions have been proposed for implementation of this plan:

a) expansion of the enrollment of the college of veterinary medicine at Davis from approximately 95 to up to 180 for the 2½ to 3 year core curriculum;

b) establishment of a clinical veterinary medical center at one of the U. C. campuses in southern California to accommodate part of the students in urban and equine medicine and to serve as a referral and extended learning center for veterinarians in that part of the state.

c) establishment of a food animal medical center in an area of high livestock density to provide clinical training for students concentrating in this curriculum track and as a referral and extended learning center for food animal veterinarians; and

d) more effective utilization of other public and private clinical veterinary programs in California in the university's veterinary medical education program.

*The first-year class has been increased from 66 in 1973-'74 to 72 for 1974-'75.

It is of interest to note that the facility on the campus in southern California could serve as the nucleus for a second complete college of veterinary medicine if such an expansion should become desirable in the future.

Parenthetically, I would like to point out that a number of the features of both these programs (Washington State/NW and California) are basically the same as those suggested for consideration by the SREB states in the reappraisal of veterinary medical education in 1973.[2]

Identifying and Quantifying the Needs in Veterinary Medicine

You must undoubtedly be asking, "What is the net effect of these changes and where do we stand in meeting the long-range manpower needs in veterinary medicine, particularly in the southern region?"

With respect to the first part of this question I can give you a tentative answer; for the latter part, I can only be equivocal and philosophical.

Counting the 36 students admitted by LSU in January, 1974, the first year enrollment in the four SREB program colleges for 1973-'74 was 272. If the programs proceed and the enrollments are achieved as projected in the preceding discussion, the first year enrollment in the seven* colleges would be 538 in 1978-'79 and 570 in 1981-'82 (an increase of 98 and 109 percent respectively).

This would indeed be a most significant increase in enrollment for this region over a relatively short period and even though information about enrollment expansion in other regions is less definitive, the increase may be considerable, resulting in a quite significant increase for the nation during the next six to eight years. But the question remains, "Will this produce enough veterinarians, too few, or - perhaps - too many?" To this fundamental question - which is very important to those of you responsible for making decisions about the allocation of scarce resources among competing urgent needs, I can only reaffirm a view expressed earlier[2] and support it by quoting from an excellent analysis of this problem in medical education by Reinhardt[14]:

> "Unfortunately, the state of the arts in this area does not yet seem up to that task [of providing accurate projections of manpower requirements], nor is it likely to be ever. . . . The difficulty lies in the very nature of the task itself, a task best described as 'Mission Impossible'."

*These figures are based on the assumption that Mississippi and Tennessee will initiate their programs as anticipated and that all the colleges elect to participate in the SREB compact program; but they do not include enrollment projections for the proposed college in Virginia because of the greater uncertainty about it at this time.

Reinhardt goes on to say that,

> "The fact is that in an area as complex as the delivery of medical care* it is well nigh impossible to offer an objective universally agreed upon standard of the 'right' number of physicians for a given population. There are simply no easily ascertained, objective criteria on which to hang such a standard."

I trust this is sufficient to show that there is nothing magic about the ratio of 17 veterinarians per 100,000 population as being the "right" number of veterinarians for the nation, much less for smaller geographic or political regions. This is only an estimate, based on a number of assumptions about parameters subject to rapid and extensive changes. While I believe that no better estimate is available, I do want to emphasize that the weaknesses inherent in any such estimate should be recognized.

As in the case of medicine - and in some ways perhaps even more so - the aggregate manpower shortage is only a part of the problem, and in many ways one much more amenable to solution than the geographic and specialty maldistribution which influences so greatly the level and quality of animal health care and the other essential services provided by veterinarians. Consequently, as has become so clearly evident in the area of human medicine, merely increasing the number of veterinarians will not solve the problem of making veterinary medical services available to all who need or want them.

After identifying a number of reasons why veterinarians do not distribute themselves in keeping with the actual needs of society at any given point in time, Price[13] rejects as untenable two solutions which have been proposed for the manpower maldistribution problem: (a) basing admission to veterinary college on predetermined conditions of where and in what type of practice the applicant will work after graduation**, and (b) restricting the versatility of graduates by educating them in such narrow specialties that they will be forced to enter and to remain in a specified type of practice. I certainly agree with Price that these are not satisfactory solutions for the problem.

Price has very effectively characterized the animal health care system as a three-way partnership, consisting of: (a) the state, which - through the use of public funds (some of which may come directly from the federal government) - shares significantly the cost of educating veterinarians and training paraprofessional personnel to provide a manpower pool available for the delivery of the specialized services, and which regulates the activities of these individuals to protect the public interest; (b) the veterinarians, who also make a significant financial contribution (both in direct outlay and in deferred income) in preparing themselves to provide this service, and who dedicate themselves to render quality service for a reasonable profit and under conditions which are conducive to professional progress and personal satisfaction and (c) the animal owning public, and society generally, who have contributed through tax funds to help make the manpower pool available, and who have a right to expect the availability of a good animal health care resource and other veterinary medical services, delivered at a reasonable profit through fee-for-service or, in certain instances, tax-supported programs. Only through cooperative effort and rational, innovative planning can the state's needs for geographic and practice-type distribution of veterinarians be achieved. In principle, the incentives and initiative must come from the users of veterinary medical services, perhaps acting through community, area or state organizations.

In this context, I call to your attention the recommendation of the National Academy of Sciences Committee on Veterinary Medical Research and Education "...that research be conducted on improved methods for delivery of professional services to the food animal industry."[16] This admonition has apparently gone unheeded, and instead actions taken and projected have been made on the apparent rationale that the solution to our problems will be the production of a sufficiently large enough number of veterinarians to meet society's needs in the expanding services rendered by veterinarians. The experience of the medical profession seems quite clearly to indicate that this is not the best approach, and if it should, in time, solve the problem it would be at a very high cost to society.

I am certainly not naive enough to think that I have **the** answer to this complex problem; but I sincerely believe that viable alternatives can be developed through cooperative effort. As an example of an alternative worthy of consideration, I suggest that something comparable to the Health Maintenance Organization in human health care delivery might be an effective way to secure quality veterinary medical service in an area which, under traditional practice arrangements, does not provide the inducements for attracting or retaining professional personnel.

Before leaving the subject of maldistribution of veterinarians, I feel I would be remiss if I did not

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*There is every reason to believe the same is true of animal health care; hence the analogy seems to me to be completely apt.

**Rejection of this as a reasonable and workable solution to the problem of maldistribution does not necessarily preclude the possibility of an equitable arrangement whereby a student would agree in advance to work for a specified period in a shortage area or specialty in return for special financial assistance from public funds to assist with the expenses of his/her professional education. This subject of "pay-back provision" related to certain training assistance programs is one of very active debate at this time, and I do not want to imply support for any particular position on the complex questions involved.

acknowledge candidly that there are those who view this as an euphemism for a situation in which an increasing percentage of veterinarians (educated at considerable public expense) enter what is perceived to be a lucrative pet practice in urban areas, leaving rural areas (and specifically food-animal health care) inadequately served. This view has caused no little frustration and even bitterness on the part of some legislators who may, on the one hand, consider the education of pet animal practitioners at public expense an improper use of public funds, or who - on the other hand - are strongly motivated by these experiences to establish a new school of veterinary medicine in their state so enough veterinarians will be produced to meet the various needs of its population. The latter view, as indicated above, fails to take into account the complex factors involved in maldistribution and realistic approaches to the solution of it. Further comment about maldistribution would be redundant, but I do want to say a word about what I consider to be a gross misunderstanding about the role of veterinarians and justification for their involvement in pet (companion) animal practice after receiving a professional education supported in large part by public funds. Even though very little attention has been given to this subject*, there now is considerable evidence that companion animals fulfill important emotional needs and hence contribute significantly to human well being. Few of us with personal experience in this area would question this at what might be considered an intuitive level. However, I am convinced that we are only now beginning to recognize the real importance of these relationships, and hence the contributions being made by companion animal practitioners to over-all human welfare, particularly in contemporary societies and those which can be anticipated in the future. Therefore, I urge you to consider this point very carefully before deprecating the role of companion animal practitioners or denouncing the use of public funds for partial support of their education. I hasten to add that this is not an excuse for the failure of the profession to do its part in meeting pressing needs of other segments of society. As emphasized earlier, these can only be met, however, by positive, rational planning and action on a cooperative basis.

Aside from personal considerations, major factors in attracting and retaining adequate number of veterinarians to provide the quality services needed by a state or region include: (a) the opportunities for professional improvement through continuing or extended education activities, and (b) the availability of adequate laboratory services and consulting expertise. Much has been said and written about these, particularly in efforts to justify the establishment of new veterinary colleges, since the presence of a college in a state naturally constitutes a significant resource in both areas. Time does not permit a detailed discussion, but I would like to express the strong conviction that while this principle is indeed true, it does not necessarily follow that there must be a veterinary college in a state for it to provide quality programs of continuing education, referral service and animal disease research. The emerging programs in Washington/Idaho/Oregon and in California serve as examples of ways in which these needs can be met without the presence in a specific geographic area of a veterinary college. Again, this point is one which I tried to emphasize in my 1973 report and which is appropriately addressed by the recent report of the special SREB committee.[8] In all candor, I must say that I feel this has not been given enough attention, and that there has been a tendency to expect these needs to be met automatically by the establishment of a veterinary college.

As many writers and studies have noted in recent years, it is possible to reduce the number of veterinarians required for providing a given level of certain types of service through the use of properly trained technicians working under their supervision. It is encouraging therefore, that the American Veterinary Medical Association has taken the initiative on a number of aspects relating to the training, organization and regulation of animal technicians and has established a committee which has been approved for the accreditation of training for animal technicians.

While progress is being made in this area - one which can have a considerable effect on veterinary medical services in the long-run - a word of caution is in order. This, too, is a complex area of the overall problem of services and manpower requirements; and, as Reinhardt[14] has observed with respect to the use of paramedical personnel by physicians, success in this area depends on the willingness of the professional to hire such support personnel. He notes, furthermore, that between 1965 and 1970 the average number of aides per physician in medical practice appears not to have increased at all. It will be of interest to observe if public pressures related to the increasing costs of both education and health care delivery, much of which is borne by state or federal funds, will result in any significant change in the use of paraprofessional personnel.

Thus far, the consideration of needs in veterinary medicine has been related primarily to manpower requirements for delivery of services, and principally from the point of view of what economists would consider as "effective demand" rather than the more idealistic "animal health care needs." Implicit in much of the discussion has been another aspect of this complex subject which must be addressed explicitly, for it is probably the one about which you receive the greatest pressures to expand veterinary

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*It is appropriate to note that the NAS Committee strongly recommended that systematic studies be made of this relationship between man and his companion animals.

This panel reviewed ways states could meet the needs in selected health professions. Left to right, the speakers are W. S. Bailey (veterinary medicine), Henry B. Peters (optometry) and William H. Knisely (medicine)

medical education programs; the need for more opportunities for entry into the other end of the manpower pipeline - for admission to colleges of veterinary medicine.

It is beyond the scope of this paper to discuss the several reasons for the increasing interest in veterinary medicine as a career and hence the intense competition for admission to the nation's 19 schools of veterinary medicine. Suffice it to say that this situation has received nationwide publicity in the news media (including CBS television, the New York Times and its news service, to mention but a few examples). Desirable as the publicity may be for the profession in certain respects, it is probably serving to exacerbate the problem of competition for enrollment. And it is now generally agreed that it is more difficult to be admitted to a veterinary college than to medical college in this country. One national publication reported recently that medical schools are accepting one of every 2.7 applicants and that the ratio for veterinary schools is one for every 7.4 applicants. These figures agree quite closely with the results of a study made at Ohio State University[15] in which it was found that 38% of the applicants to medical school are admitted, whereas only 15% of those to veterinary school are admitted.

Whether or not these figures are accurate, the pressures for admission are indeed intense, as you in the state legislatures are keenly aware. And at a time when access to higher education is increasingly viewed as a right rather than a privilege, it is very easy for one to reason one step further and insist on the right to access to the program of his/her choice. A major difficulty (among others) with this rationale is that when public funds are being used to subsidize most of the very high educational costs in the medical sciences, the number of admissions should be related as closely as possible to the anticipated effective demand for graduates (taking into account, of course, the expected attrition - which in the case of veterinary medicine is currently very low because the intense competition for admission tends to select for not only high intellectual capability but also for motivation). This brings us back to the problems of projecting future manpower requirements, and to the question of the need for additional expansion in veterinary medical education.

In contrast to the uncertainties which characterize many aspects of the long-range manpower requirements in veterinary medicine, there is one area about which we can speak with considerable confidence. The current and projected expansion of veterinary medical education will result in a general shortage of well-trained and highly qualified faculty which may indeed be serious enough in some specialties to endanger the quality of the educational program. In such an environment, it is inevitable that competition will be very keen for the talented individuals, resulting in greater budget pressures on all colleges - old as well as new. Consequently, one of the greatest needs during the next decade will be the training, **in depth**, of a much larger number of talented individuals for academic positions than have been available in the past. The gravity of this

problem cannot be over emphasized, and all states should recognize the necessity for cooperative effort in solving it if the other needs for veterinary medical manpower are to be met. In addition to the direct effect on the budget by higher faculty salaries generally, veterinary colleges will face increased budget pressures as they (a) assist their capable young faculty members in securing additional training and (b) provide greatly expanded residency opportunities for young graduates with potential to begin their specialty training which will lead some of them into academic positions and prepare others for rendering higher quality service in specialty practices. This point is being made as forcefully as possible so that you will appreciate the budget requirements of your state's veterinary college or of costs for contractural arrangements in meeting your state's manpower needs through cooperative programs with other institutions.

The problem which I have just discussed was one of the reasons that in my report last year I recommended that SREB reevaluate its philosophy about the amount of contract payments in relation to total educational costs. Under today's conditions it is essential that contract for service fees (regardless of whether through a regional compact program or direct state contract) provide most of the difference between the total educational cost per students and the amount derived from student fees, federal financial assistance and state (institutional) subsidy.

This is illustrated by the recent experience of Oklahoma State University and the reason for its withdrawal from the SREB program and by the recent communication by Ohio State University to states with contracts for student spaces in its veterinary medical college which, in effect, enunciated an institutional policy which is basically the same as the above principle. Officials in the contract states were informed that based on their best available information at this time Ohio State expects to require $7,400 for each "contract" student in 1975-'76 and $8,000 in 1976-'77. This is based on a requested state subsidy for each Ohio student of $9,011 and $9,635 for these years. (The actual amount is subject to change depending on the amount of federal capitation funds received and any changes in student fees.)

This leads to the closing thought in this section: the rather somber reminder that the authorization for the federal capitation program under the Comprehensive Health Manpower Act of 1971 expired on June 30, 1974, and there has not yet been congressional action to extend or replace it. Whatever happens at the federal level certainly will greatly affect the budget requirements which must be met from other sources, as you know only too well. In this connection, you might be interested in knowing that during the past three fiscal years the nation's veterinary colleges have received a total of approximately $19.6 million in capitation funds under this program.

Summary and Conclusions

There is indeed a shortage of veterinarians in the United States, and - given the long gestation period for developing new colleges and producing the first graduates - this can be expected for some years in the future. The problem is exacerbated by the fact that there are both geographic and specialty maldistributions in relation to society's real and perceived needs. Furthermore, the problem is made more visible, and certainly more politically sensitive, because of the intense competition for enrollment in colleges of veterinary medicine as a result of increasing interest in career opportunities in the profession, stimulated by a variety of motivations.

In response to these needs and desires, the enrollment capacity of colleges of veterinary medicine has been and continues to be increased markedly by expansion of existing colleges and establishment of new ones. The most intense activity is occurring in the South, where the capacity of SREB-participating colleges is expected to more than double between 1973-'74 and 1981-'82. (And it should be noted that this expansion was preceded by a quite significant expansion in several of the colleges in the original SREB institutions.)

The enrollment capacity of veterinary medical colleges should be related as closely as possible to the best estimates of manpower needs (in terms of "effective demand") at the time the effects of the enrollment will be exerted on the animal health care system. Unfortunately, it is not possible to provide accurate objective projections of manpower requirements for an area as complex as medical or animal health care, with the many variables which are subject to such rapid change. Consequently, it is possible to overreact to a problem as serious and as emotionally charged as this one, especially since the corrective feedback mechanisms of the marketplace operate slowly and imperfectly. Difficult as it may be - given the interaction of educational, economic and political considerations in the decisions about higher education programs - legislators, educational planners and institutional officials should strive to resist pressures which could result in over expansion of the capacity of veterinary medical education.

In this context, it is important to recognize that merely increasing the number of veterinarians will not necessarily solve the problems of maldistribution. Therefore, states should give more attention to ways of overcoming maldistribution problems and of improving the quality and efficiency of veterinary medical services.

In view of the complexity of the problems and the increasing cost of veterinary medical education and services, it is particulary important that institutions and states cooperate to achieve the greatest possible efficiency and quality of programs. To this end, it is imperative that there by more effective communication between all organizations, institutions and gov-

ernmental entities involved in efforts to provide the manpower and services needed to achieve the desired goal of improving human health and welfare.

Aside from the question of long-range manpower needs, the rapid expansion of enrollment capacity now underway poses a very real and potentially serious problem of faculty recruitment and retention because of the shortage of experienced, well trained and highly qualified faculty. Institutions, states and the federal government should give highest priority, therefore, to the training of adequate numbers of specialists to meet the needs of institutions for their teaching, research and public service programs.

Finally, I feel that I would be less than honest if I closed without expressing a strong **personal** conviction about the current situation with regard to the expansion of veterinary medical education in the Southern states. It is certainly not my desire to be judgmental, and I appreciate fully the autonomy of individual states, commissions of higher education, and institutions. I must say, however, that I feel there has been less than adequate communication and cooperation in the planning of the projected expansion; that the public interest could be better served my more attention to and concerted effort on improvement of quality and efficiency of veterinary services than simply by increasing the number of veterinarians; that too rapid expansion in a region can have a detrimental effect on the quality of the educational programs; and that much more consideration should be given to more efficient ways of providing the veterinary services needed by society at lower total costs (including manpower training and delivery of services). Moreover, it is my conviction that if the majority of the plans for expansion of veterinary medical education now projected and under consideration should be effected during the next decade the shortage of veterinarians which has received so much attention in the 60's and 70's could be changed into a surplus in the 80's. I am well aware that many of my colleagues do not share this view and that some consider it as bordering on heresy. However, I believe it is a point of view that merits careful consideration before being dismissed as unduly conservative or lacking in vision. In this connection I call attention to the fact that similar views about medical manpower and related aspects of health care delivery are now being expressed seriously by responsible and knowledgeable individuals, both within and outside the medical profession, including the director of the Carnegie Council on Policy Studies in Higher Education*, the first group to call for a major expansion of medical education. It naturally follows that I feel that those states in the South which are considering establishing new colleges of veterinary medicine but which have not yet made major commitment to effect such action should consider very carefully alternative solutions to meeting their needs for improved and expanded veterinary medical services.

The cooperative programs being planned or implemented by California and Washington/Idaho/Oregon could serve as models for programs which could be designed to meet multi-state needs and later be expanded into multiple independent colleges if the need is demonstrated and adequate resources are available.

In closing, I want to emphasize as strongly as possible that urging caution against too rapid or over-expansion, particularly in a given region, should not in any way be interpreted as implying that veterinary medical education does not merit continued support from federal funds. The justification for such support because of veterinary medicine's contributions to society and its need to assure greater equity of opportunity for entry into the profession has been adequately enunciated by the NAS committee and other reports. That the medical sciences merit federal support only when expanding to overcome manpower shortages is an untenable position in contemporary society.

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*Associated Press story of September 12, 1974, regarding statements by Dr. Clark Kerr in a speech to the Southern Governor's Conference in Austin, Texas.

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GOVERNORS' STATEMENTS

Representative Ray S. Smith, Jr., of Arkansas, 1973-74 Chairman of SREB's Legislative Advisory Council, listens to North Carolina Governor James E. Holshouser, Jr., 1974-75 SREB Chairman, address the first general session.

Governor Wendell H. Ford of Kentucky addresses delegates assembled in the dining room of Keeneland Race Track in Lexington.

Governor James E. Holshouser, Jr., North Carolina†

As we were coming up here yesterday, I couldn't help but think of how this conference might have been several years ago because it wasn't so long ago that any discussion of higher education had to include some mention of the fairly ugly climate that prevailed on the campuses and colleges across the country. And that period of crisis and confrontation has pretty much passed, due to the cool heads during the strife and the turmoil. That doesn't mean that higher education has no challenges ahead for it; we all know better than that. First of all, we face the challenge that we always face, which is the challenge of getting the maximum use out of our tax dollars and the other resources that go into higher education in our various states. For many years, higher education's main problem has been where to put all the students and how to spend all the money. And the schools have raced to keep up with all the program trends, trying to keep up with each other. There have been new academic programs, faculty members and buildings added at a rather astonishing rate. This is especially true in the state-supported institutions. But, that era has passed too, and now we are finding enrollment starting to level off, and actually declining on some campuses.

A Decade of Enrollment Declines

Population projections are indicating that colleges and universities are entering a decade of enrollment declines. The Census Bureau has predicted that between 1972 and 1985 the number of colleges age young people in the United States will decrease by approximately two million. At the same time that seemingly endless flow of money just isn't there any more, as all of us know.

Economic realities, if nothing else, dictate that colleges and universities are going to have to make some conscious and painful choices between one program and another. For those of use who have to look at the needs of our state as a whole, we also have to balance the needs of higher education and all the other demands of those tax dollars. And less there be any temptation to say to ourselves because enrollment has begun to level off, and perhaps turn our heads in another direction, let me say simply, that I think this offers an opportunity most of us haven't had during our careers in public service: to concentrate on having to build quality in higher education without having to be so concerned with quantity all of the time, such as financing massive building programs and large scale faculty expansions.

At the same time, we have to recognize that the taxpayers are taking a harder look, everyday, at how their tax dollars are being spent. They want to know that those dollars are being spent wisely and efficiently, whether it is for higher education or anything else. And they expect accountability (I think that is a word we are going to hear a lot in the 1970's) from the institutions those tax dollars support, including the colleges and universities. This means that people are going to grow impatient with new programs on our campuses, especially when they see that programs are duplicating and overlapping. We, as the people who are responsible for the spending of those tax dollars, have a responsibility to make certain that that waste and duplication is minimized.

At the recent Southern Governors Conference in Texas, Dr. Clark Kerr spoke to the Governors who couldn't help but be impressed at the emphasis he put on the necessity for higher education to be concerned in developing programs that are going to stay abreast of the ever-changing needs of the market place and to prepare students for the new careers. We also have a responsibility to determine the role of each institution in our total program of higher education to make certain that our less developed campuses not only survive, but are given enough support to fullfill their particular mission. We have to recognize that colleges and universities have a responsibility to provide people with an opportunity for continuing education on and away from the campuses.

Responsibility for Private Colleges

Looking at the total picture, I also think that we have a responsibility to consider the role of the private colleges and universities. This has been a difficult one for me because I have some serious reservations about the principles involved. For me the time came when we had to rise above principles, and say to ourselves that the practicalities and the use of our tax money wouldn't let us afford any other choice in seeing to it that our tax dollars for education are used to provide the maximum benefit for the least amount of money.

It's important that we look at the possibilities of assisting private institutions rather than duplicating

† *Governor Holshouser is the 1974-75 Chairman of the Southern Regional Education Board.*

their programs at the nearby state supported campuses. We have begun doing this in North Carolina. There is some talk that we are going to do it a little more, but the money may be a constraint there, too. I It just makes sense to take tht state-wide approach in looking at higher education in all respects and to extend that approach to the entire South. Win Godwin and the SREB have taken a leadership role over the years in helping our states avoid unnecessary spending of tax dollars. That's been a significant role, although far from being the only role the Southern Regional Education Board has served.

Last year the Academic Common Market was organized by the Board. Eleven states have now approved this arrangement to waive out of state tuition for students from other states in the region to enroll in unusual graduate programs that are offered on some campuses. It has enabled 112 high cost, low enrollment progras at 32 campuses to accept a greater number of students at a total cost of much less that we could ever afford individually on our own.

SREB with private funds has also initiated an expanded program to share uncommon education facilities within our region. Small grants are being made to individual faculty members and to advanced graduate students in the natural sciences to use these unique and expensive facilities whenever they may be in the region. Both programs offer to the Southern states the promise of eliminating unnecessary, costly duplication. With these sharing arrangement, there just isn't any need for schools across the South to have unnecessary expenses when we can share the cost with each other.

Educational Reorganization in N.C.

Finally, I would like to briefly share with you the North Carolina experience in organizing higher education because it relates so strongly to many of the things that we are going to be talking about. I ought to point out that while many of the problems in every state are the same, there are also differences. And each state has to look for what it believes to be that best route for that particular state. I think North Carolina's interest in our endeavor would be of interest to all of them.

Having served for several terms in the legislature, I saw firsthand what really happened when higher education became an annual or biennual football to be kicked around the legislature. I had a chance to see the vote swapping and the coalitions participating in one or two. The swapping and the lobbying goes on all too often when the legislature has to make all the decisions for higher education. I couldn't help but think about that when Jerry Ford was talking to the Congress that first time around. He was teasing Carl Albert about those boondoggles for Oklahoma and the fine public service projects for Michigan.

In 1971, North Carolina decided to try putting an end to all that and to try building a real system for governing higher education in our state. We put together an umbrella called the Board of Governors and placed it over our 16 senior institutions. We gave this new Board virtually all the governing powers including budget control and the authority to make program decisions for all the state institutions. At the same time, we maintained the individual Boards of Trustees for each of the campuses and provided that their powers would be derived largely by delegation from the Board of Governors.

It's a plan that provides for strong, central leadership where it is needed while still allowing for strong local support where needed. It makes possible a solution for a greater majority of the problems on an institution's basis and yet it frees the central staff for consideration of the statewide problems and for planning. Some states have gone the strong centralization route and others have been completely decentralized. North Carolina has chosen a highbred that I think, is going to work very well. The system is still in its early stages obviously. It's going to take several years before we can make a real judgment as to just how well it's worked. Since its adoption, we've already had one major hassle in the legislature. It had its beginning before the new system went into operation. But, we have faith in our plan and, I think, for the most part we are finding that all those politicians are willing to let the governing board do its job of trying to make the allocation of resources among the various institutions so that programs are established that compliment each other and don't duplicate.

This doesn't mean that the legislature or the governor has been cut out of the picture altogether. We still have the responsibility of how much money is going into higher education. The legislature also elects the members to serve on the Board of Governors.

I believe that it is a new day for higher education in North Carolina and also that we'll see a new day for higher education in the whole South.

If the South as a region is going to lead this country for the year remaining of the century, it's going to require all of us in the executive and legislative branches of the government. Many crucial decisions to assure that the states make the maximum use of this opportunity while minimizing the problems that have accompanied rapid growth in all of the parts of the country at one time or another. It's obvious that the South is going to take that leadership role that we all expect between now and the turn of the century that we are going to have to be leaders in building the quality system of higher education that will prepare our people to make the most of our opportunities that lie ahead and give us the resources to make the vital decisions that will shape the future of the South.

Governor Wendell H. Ford, Kentucky

The decade of the 60's was a period of rapid growth in the state supported institutions of Kentucky, similar to conditions in states which you represent. During the period 1960-1970, revenue from legislative appropriations in Kentucky increased over 5½ times. Full-time enrollments were growing over 2½ times. Earned degrees virtually doubled.

The state supported system expanded from six to eight senior institutions during the period, with the addition of the University of Louisville and Northern Kentucky State College. The University of Kentucky Community College System increased from five extension centers to 14 community colleges.

The problem of meeting the requirements of an expanded state system, coupled with rapidly rising costs while at the same time maintaining certain traditional standards, has been the challenge of the "Seventies." Thus, the Sixties were known for growth. The Seventies have, by necessity, focused on refinement.

The 1970 Kentucky General Assembly, recognizing rapid expansion in higher education, and sensing a multitude of new problems, directed the Council on Public Higher Education to prepare a role and scope study of the state system of higher education. While the study was prepared by the Council staff at that time, it had input from state institutions as well as the nine-member Legislative Interim Study Commission on Higher Education, which had the responsibility of receiving the study and recommending statutory changes as it saw fit, to the General Assembly and Governor.

As Lieutenant Governor in 1970, I was able to see the need for a more effective coordinating structure in Kentucky. Even before, as a State Senator in the mid-sixties, and as an Administrative Assistant to Governor Bert Combs in the early 1960's, I had observed first hand the rapid growth and development of higher education.

The study conducted by the Council was completed in early 1971 and coincided with my campaign for Governor. The major recommendations were later incorporated into my education platform and ultimately were incorporated into Senate Bill 54 of the 1972 General Assembly. This legislation had my complete support as well as most members of the General Assembly. Basically, it provided:

1. Ten lay members appointed by the Governor as the voting members of the Council.

2. The chief executive officer of each institution as non-voting members.

3. Increased Council review and approval of programs, specifically in the area of graduate and professional degree offerings.

4. Increased Council involvement in the budgetary recommending and review process.

5. Required that the Council review and approve all capital construction projects in excess of $100,000.

6. Recognition of the Council as a part of the executive branch of government for coordination purposes.

Senate Bill 54 was passed by the General Assembly and I signed it into law on March 8, 1972.

In separate legislation, approved by the General Assembly, I recommended and supported the concept that the Governor be removed as the chairman of the Governing Board of the State university. This role placed Governors in dual positions, especially with budgeting. The Carnegie Commission, a few months previously, had recommended that Governors not serve in this role. I believed the recommendation to be sound and acted in accordance with it.

Because of my association with state government and studies by the Carnegie Commission and others, I was, and am quite aware, of the potential influence of a governor over public higher education in his state. The power of budget decisions, appointments to governing boards of the institutions, sponsoring, signing or vetoing legislation, and the affecting of public attitudes all serve to place the Governor in a role which can profoundly affect, positively or negatively, higher education in the state. In exercising my role in higher education, I have looked to the Council and the institutions working through the Council for leadership in the field of education. While I recognize my responsibility as the chief executive, the real work and achievement of coordination has been made possible by the Council, the institutions and the General Assembly pulling together to resolve issues in higher education.

The term coordination implies the existence of separate units, each with some freedom to control its own operations, and thus the need for a mechanism to work in concert toward those purposes that cannot be achieved by isolated, individual actions.

In such a mechanism, the requisites for success are the ability of the coordinating agency to be persuasive and the willingness of the units to subordinate their individual interests to common goals.

Through restructuring, The Council on Public Higher Education has worked to carry out the mandate of the 1972 General Assembly. The purposes of

coordination have and are being achieved through the cooperation of the Council and the individual institutions.

Many of you have had similar experiences in higher education in your state. With your permission I would like to cite some of the achievements of the Council over the past two and one-half years as well as current issues being studied.

1. Development of a comprehensive plan for higher education in Kentucky to be completed before the next session of the General Assembly.

2. Development of a management information system to provide compatible information for planning and information purposes.

3. Development of criteria for evaluating new graduate and professional programs.

4. Further refinement of the budget request format.

5. Task groups have been formed in medicine, dentistry, nursing, pharmacy and allied health.

6. Initiation and development of an area health education system. Two of nine proposed areas have been selected and are in operation.

7. Additional studies have been undertaken in law, manpower needs, continuing education, tuition levels, and consideration of problems associated with students transferring from one school to another.

8. Examples of inter-institutional cooperation have been identified through the establishment of the Northern Kentucky Consortia and the Owensboro Consortia.

9. Expanded opportunities for students in special fields of study have been expanded with the assistance of the Southern Regional Education Board and other interested agencies.

These are but some of the examples of coordination in Kentucky. I want to thank each of you for coming to Kentucky for this annual meeting of the SREB. We in Kentucky are proud to be a part of the SREB and will continue to look forward to working with each member state in the future.

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Auburn

Representative Retha Deal Wynot
Gadsden

Arkansas

Representative B. Douglas Brandon, Jr.
Little Rock

Representative Ernest Cunningham
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Representative Joseph K. Mahoney
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Senator Bill H. Walmsley
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Delegate Michael D. Greer
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Senator Samuel N. Kusic
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Allen Barber
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Dennis Blumer
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Wendell H. Ford
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